Puff, Puff, Drink: The Association Between Blunt and Alcohol Use Among African American Adolescents and Young Adults

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Abstract

Although African Americans report lower levels of alcohol use relative to their White counterparts, they experience higher rates of alcohol-related problems (e.g., alcohol dependence). One understudied connection between alcohol use and dependence is the dual use of illicit drugs, especially marijuana use. It is speculated that blunt use in combination with alcohol will have more adverse alcohol-related consequences among African Americans than alcohol use alone or alcohol and nonblunt marijuana use. The current study uses pooled data from the 2011–2014 National Survey on Drug Use and Health to examine the odds of alcohol dependence based on alcohol and marijuana typology in comparison to alcohol only users. Among 11,124 African American adolescents (12–17) and young adults (18–25) who consumed alcohol in the past year, 57.5%, 36.8%, and 5.7% reported alcohol use alone and in combination with blunt use and nonblunt marijuana use, respectively. Relative to alcohol users only, youth who used alcohol and blunts had increased odds of having alcohol dependence. This association was not found among youth who reported alcohol and nonblunt marijuana use. The increased rates of alcohol dependence highlight the public health concern of dual alcohol and a specific type of marijuana use (i.e., blunts) among African American youth.

Keywords  
marijuana; alcohol; blunts; adolescents; young adults

Alcohol is among the most commonly used substances by adolescents within the United States, with more than 60% of youth reporting lifetime use by the end of high school
Moreover, recent statistics reveal that one in three high school youth report current alcohol use, defined as having at least one standard alcoholic beverage within the past month (Johnston et al., 2016). Although African American adolescents have been found to report lower rates of use compared to their White peers (Chen & Jacobson, 2012; Johnston, O’Malley, Miech, Bachman, & Schulenberg, 2017; Khan, Cleland, Scheidell, & Berger, 2014), this subgroup of youth has been identified as high risk, given the disparity in alcohol-related consequences from use, including greater risk for academic, legal, and interpersonal problems, risk for dependence, and alcohol-related death relative to their White counterparts (Zapolski, Pedersen, McCarthy, & Smith, 2014). Furthermore, these racial disparities in alcohol-related consequences have been found even at comparable levels of alcohol use between White and African American users (Mulia, Ye, Greenfield, & Zemore, 2009). Given the disproportionate rates of negative long-term consequences associated with alcohol use among African American youth, such use remains a major public health concern.

To help understand this racial disparity in alcohol-related consequences, researchers have begun to examine the influence of sociocultural factors, such as racial discrimination, residential factors, and drinking context. Bonilla-Silva (1997) proposed that the “racialized social system” in the United States, also referred to as institutionalized racism/discrimination (Gilbert & Zemore, 2016; Jones, 2000; O’hara, Armeli, Scott, Covault, & Tennen, 2015), disadvantages African Americans. Thus, although African Americans are less likely to engage in alcohol use, they are more likely to be arrested or experience other legal ramifications for use (Brown & Frank, 2006). In a recent review paper, Zapolski et al. (2014) also referenced literature documenting the impact of racial discrimination and other social/cultural factors (e.g., aggressive marketing of alcohol in low-income African American neighborhoods; Bluthenthal et al., 2008; Rose et al., 2018) on alcohol-related outcomes among African Americans. Thus, greater risk of alcohol-related outcomes among African Americans may be, in part, because of environmental factors, such as racial discrimination that places African Americans at higher risk for experiencing consequences from use.

There is also a growing body of literature examining racial differences in the typologies of substance use during adolescence and young adulthood, particularly the dual use of alcohol and other substances (Banks, Rowe, Mpofu, & Zapolski, 2017), which can provide further insight into disparities in alcohol-related consequences, as dual use of substances during this developmental period is associated with increased risk for negative health and social consequences compared to those who are single-substance users (Green et al., 2016; Orlando, Tucker, Ellickson, & Klein, 2005. For example, Banks and colleagues (2017) found that African American adolescents were more likely than Whites to report dual alcohol and marijuana use compared to alcohol only use. Given evidence suggesting that African American alcohol and marijuana users are more likely to experience co-occurring alcohol and marijuana use disorders (Pacek, Malcolm, & Martins, 2012), more nuanced research is needed to better understand the link between alcohol and marijuana use among this population.
Clarity on the relationship between marijuana and alcohol among African Americans may be gleaned from a relatively new body of literature on a specific type of marijuana use—the use of blunts—among African American populations (Montgomery & Mantey, 2017a, 2017b; Schauer, Rosenberry, & Peters, 2017). Blunts are partially or fully hollowed-out little cigars or cigarillos (LCCs) that are filled with marijuana and have been documented to be highly prevalent within African American communities, with heavy levels of blunt use (i.e., 21–30 days) reported by approximately 40% of African American past month blunt smokers (Fairman, 2015). In national samples of African Americans who reported past month marijuana use, approximately 63%–73% reported consuming marijuana via blunts (Montgomery & Bagot, 2016; Timberlake, 2009). Blunts emerged as a phenomenon in the mid-1980s as an economical way to consume marijuana (Sifaneck, Kaplan, Dunlap, & Johnson, 2003) and were primarily smoked by individuals of African descent. Blunt use is distinct from joint use, the common method of marijuana consumption (Ream, Johnson, Sifaneck, & Dunlap, 2006), and is associated with its own rules/rituals and subculture (Dunlap, Johnson, Benoit, & Sifaneck, 2006). Over the years, LCCs have also been heavily marketed in the African American community by the tobacco industry (Cantrell et al., 2013), including those LCCs that simplify the blunt making process (Giovenco, Miller Lo, Lewis, & Delnevo, 2017).

Given the unique historical context of blunt use in the African American community, more research is needed to examine the link between blunt use and alcohol use among African American adolescents and young adults. Several ethnographic studies have been conducted examining the association between alcohol use and smoking blunts, suggesting that the two behaviors often cooccur (Dunlap et al., 2006; Johnson, Bardhi, Sifaneck, & Dunlap, 2006), especially among young adults and minorities (Johnson et al., 2006). For instance, Dunlap and colleagues (2006) identified three group settings in which blunt smoking occurred, including parties where alcohol is the primary substance consumed and blunt users are expected to separate themselves from the rest of the party when smoking. Many adolescents and young adults also commonly use argot words that describe the effects of being drunk and high simultaneously, such as the use of the word “crunk” that was included in many hip hop songs and became a popular slang word in mainstream culture (Johnson et al., 2006). The strong link between blunts and alcohol has also been observed among the tobacco industry as evidenced by its decision to develop and sell blunt wraps and LCCs that taste like liquor (Sifaneck, Johnson, & Dunlap, 2006).

Recent data corroborates previous findings linking nonevent specific alcohol and blunt use, with blunt users endorsing a greater number of Alcohol Use Disorder symptoms than those who report nonblunt marijuana use (Cohn, Johnson, Ehke, & Villanti, 2016). Moreover, findings support a strong association between past month heavy, binge, and light drinking and blunt use among African American adults (Montgomery & Mantey, 2017a), with similar evidence of a link between binge drinking and blunt use among African American adolescents (Montgomery & Mantey, 2017b). Although studies have explicitly focused on the link between alcohol and blunts, indicating that 85% of blunt users report current alcohol use (Cohn et al., 2016), it is unclear if the use of alcohol and blunts is associated with greater alcohol related outcomes compared to alcohol only use or alcohol and nonblunt marijuana use.
The current study aims to add to the growing and important body of alcohol and marijuana co-use research by examining if the use of alcohol and marijuana typologies (alcohol and nonblunt marijuana or alcohol and blunt use) are associated with greater odds of alcohol dependence compared to alcohol only users, and if, among marijuana users, alcohol and blunt use is associated with greater odds of alcohol dependence compared to alcohol and nonblunt marijuana use. Consistent with previous literature, we hypothesize that youth will report higher rates of alcohol and blunt use compared to alcohol and nonblunt marijuana use. In regard to outcomes, we hypothesize that both alcohol and marijuana typologies will be associated with an increased odds of alcohol dependence compared to alcohol only use, with higher odds found among alcohol and blunt users. Furthermore, as consistent with prior work demonstrating a positive association between blunt (vs. nonblunt marijuana use) use and alcohol use disorder symptoms (Cohn et al., 2016), we hypothesize that among marijuana users, alcohol and blunt users will have greater odds of alcohol dependence than alcohol and nonblunt marijuana users. Findings from this study will help us to determine which marijuana use subgroups of alcohol users are most at risk of alcohol dependence. This study will inform future research and intervention programming for African American youth who consume alcohol.

Method

Study Sample and Population

This study used nationally representative cross-sectional pooled data from the National Survey on Drug Use and Health (NSDUH, 2011–2014). The NSDUH survey provides national and state-level data on the use of tobacco, alcohol, illicit drugs, and mental health among individuals 12 years of age or older in the United States (U.S.). In the current study, we examined data from African American (N = 11,124) youth who reported past year alcohol use and were between the ages of 12–25, who were included in the survey. Further details about the NSDUH survey methodology has been published elsewhere (Center for Behavioral Health Statistics & Quality, 2015).

Measures

Demographic/other substance use variables.—In the current study, we examined data from African American (N = 11,124) youth who reported past year alcohol use and were between the ages of 12–25. Respondents were categorized into two age groups: 12–17 or 18–25. Gender was a binary variable consisting of males and females. Family household income was categorized into four groups: (1) less than $20,000 per year, (2) $20,000-$49,000, (3) $50,000-$74,999, or (4) $75,000 or more. Education level was assessed and was categorized as (1) less than high school, (2) high school graduate, (3) some college, and (4) college graduate. Past year use of cigarettes and illicit drugs other than marijuana (i.e., cocaine, heroin, hallucinogens, inhalants, methamphetamine, or misuse of prescription psychotherapeutics) was assessed (yes/no).

Alcohol and marijuana/blunt use.—Adolescents (ages 12–17) and young adults (18–25) who reported past year alcohol use were included in the current study. Participants were asked to report their past-year use (yes/no) of marijuana/hashish and blunts (defined as a
cigar with marijuana in it). Using data from these responses, three past-year alcohol and marijuana subtypes were created: (1) alcohol only users (that is, respondents who reported past-year alcohol use but no blunt or nonblunt marijuana use), (2) alcohol and nonblunt marijuana users (that is, respondents who reported past-year alcohol use and marijuana use, but not in the form of blunts), and (3) alcohol and blunt users (that is, respondents who reported past-year alcohol use and blunt use). Given that the NSDUH only provides data on one method of marijuana use (i.e., blunts), the specific methods of consumption (e.g., bongs, vaporizers) among nonblunt users in the sample are unknown and was therefore broadly categorized as “non-blunt use”.

**Alcohol dependence.**—Individuals who endorsed three or more alcohol dependence criteria from the *Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition (DSM-IV)* American Psychiatric Association, 2000 were defined as being alcohol dependent in the past year. The criteria for dependence included (1) spending a great deal of time over a period of a month getting, using, or getting over the effects of alcohol, (2) unable to keep set limits on alcohol use, or used more often than intended, (3) needed to use alcohol more than before to get desired effects or noticed that using the same amount had less effect than before, (4) unable to cut down or stop using the substance every time he or she tried or wanted to, (5) continued to use alcohol even though it was causing problems with emotions, nerves, mental health, or physical problems, (6) reduced or gave up participation in important activities due to alcohol use and (7) reported experiencing two or more withdrawal symptoms (that is, sweating or feeling that heart was beating fast; having hands tremble; having trouble sleeping; vomiting or feeling nauseous; seeing, hearing, or feelings things that were not really there; feeling like could not sit still; feeling anxious; having seizures or fits) at the same time that lasted longer than a day after alcohol use was cut back or stopped.

**Data Analysis**

Data were weighted to be representative of the United States population and to adjust for nonresponses and probability of selection. Descriptive statistics were used to identify the prevalence of past year alcohol use, alcohol and blunt use, and alcohol and nonblunt marijuana use. Weighted bivariate models assessed the association between alcohol and marijuana use subtypes and demographic and other substance use characteristics. Two weighted Poisson regression models were conducted. In the first model, alcohol and marijuana typology (alcohol use only as the referent group) was entered as a predictor variable and alcohol dependence was entered as the dependent variable. The second model included the same variables as the first model with alcohol and nonblunt marijuana use serving as the referent group. Demographic and other substance use characteristics that are commonly associated with alcohol and blunt use were included as covariates in the models (Banks et al., 2017; Montgomery & Mantey, 2017a, 2017b). All analyses were conducted using SPSS Version 23.
Results

Sample Characteristics/Prevalence

Table 1 displays the demographic and other substance use characteristics for each alcohol and marijuana use subtype. Bivariate analyses revealed that young adults, men, and those with lower levels of education and income were more likely to be past-year alcohol and blunt users relative to alcohol only and alcohol and nonblunt marijuana users. Past year cigarette and illicit drug use other than marijuana was also highest among alcohol and blunt use subtype.

Among African American youth who reported past year alcohol use, 57.5%, 36.8%, and 5.7% reported alcohol use only, alcohol and blunt use, and alcohol and nonblunt marijuana use, respectively. Overall, 5.6% of the sample reported alcohol dependence in the past year.

Alcohol and Marijuana Use Subtypes and Alcohol Dependence

After controlling for age, gender, income, past year cigarette and illicit drug use other than marijuana, alcohol and blunt use was associated with increased odds of alcohol dependence (AOR = 1.49, 95% CI [1.03, 2.17]) relative to alcohol use only, p < .05. However, there was not a significant association between alcohol and nonblunt marijuana use and alcohol dependence relative to alcohol use only (AOR = 1.561, 95% CI [0.77, 3.182]), p = .22.

Among marijuana users, there was no association between alcohol and blunt use, relative to alcohol and nonblunt marijuana use, and alcohol dependence (AOR = 1.04, 95% CI [0.52, 2.09]), p = .90.

Discussion

African Americans experience disproportionate risk for adverse health consequences from alcohol use relative to Whites, even at lower or comparable rates of alcohol use (Zapolski et al., 2014). Given the high rates of alcohol and marijuana co-use compared to alcohol use only among African Americans (Banks et al., 2017), it is important to determine if and how marijuana use influences the association between alcohol use and dependence, especially among African Americans adolescents and young adults. This information has the potential to inform racial/ethnic disparities observed in alcohol-related consequences. Thus, the current study was designed to examine the association between alcohol and marijuana typologies (i.e., alcohol use only, alcohol and nonblunt marijuana use, and alcohol and blunt use) and alcohol dependence. Findings revealed an increased odds of alcohol dependence among alcohol and blunt users relative to alcohol only users.

In this sample of African American adolescent and young adult past year drinkers, 57.5%, 36.8%, and 5.7% reported alcohol use only, alcohol and blunt use, and alcohol and nonblunt marijuana use, respectively. To our knowledge, this is the first study to assess the prevalence of past-year blunt use specifically among alcohol drinkers. The rate of blunt use is relatively high among adolescent and young adult drinkers and further substantiates the association found between alcohol and blunt use in previous studies (Cohn et al., 2016; Montgomery & Mantey, 2017a, 2017b). High rates of blunt use among African Americans has also been observed among samples of marijuana users (Montgomery & Bagot, 2016; Timberlake, Montgomery et al. Page 6 Am J Orthopsychiatry. Author manuscript; available in PMC 2019 August 22.
These findings highlight the high prevalence of blunt use among alcohol users, particularly among African Americans, and establishes support for future research to better understand the etiology for this specific typology of substance use (e.g., motives for simultaneous alcohol and marijuana use; Patrick, Fairlie, & Lee, 2018).

This study extends the literature by demonstrating that respondents who use alcohol and blunts (but not alcohol and nonblunt marijuana) have an increased odds of alcohol dependence relative to those who use alcohol only, even after controlling for demographic and other substance use confounders (e.g., age, gender, income, past year cigarette and illicit drugs other than marijuana use). Although studies have described potential pathways among nicotine, marijuana, and alcohol that might at least partially explain the worse alcohol use outcomes found specifically among alcohol and blunt users (Buu, et al., 2014; Vergara, Weiland, Hutchison, & Calhoun, 2018; Verplaetse & McKee, 2017), the unique sociocultural aspects of blunt and alcohol use among African Americans warrants additional attention. For instance, several ethnographic studies suggest that alcohol and blunts are often used by young adults and minorities in group settings (i.e., parties) that promote the dual use of these products (Dunlap et al., 2006; Johnson et al., 2006). It is possible that African Americans are more likely to participate in group settings that support the simultaneous (i.e., use on the same occasion), rather than concurrent (i.e., use on different occasions), use of blunts and alcohol. Relative to concurrent alcohol and marijuana use, simultaneous use is associated with increased frequency and quantity of alcohol use, as well as other problematic outcomes such as impaired driving (Subbaraman & Kerr, 2015). Additional studies are needed to examine how the simultaneous and concurrent use of alcohol and marijuana use differentially impacts alcohol use outcomes among African American adolescents and young adults, in an effort to inform prevention and treatment interventions, as well as policies related to alcohol and marijuana.

Moreover, several studies have cited individual (e.g., coping style; Van Gundy, Howerton-Orcutt, & Mills, 2015) and environmental (e.g., neighborhood alcohol environment; Theall et al., 2011) factors that influence the level of risk for negative substance abuse-related consequences among African Americans. Qualitative, quantitative, and mixed methods studies should assess co-use among African Americans to determine if there are specific eventlevel factors that might influence how blunts and alcohol interact to increase risk of alcohol dependence (e.g., increased malt liquor consumption while simultaneously smoking marijuana/blunts; Collins, Bradizza, & Vincent, 2007). Although the exact mechanisms for the elevated risk of alcohol dependence specifically among African American drinkers who report blunt use are unknown, this study offers another potential explanation for the increased negative alcohol-related consequences found among African Americans. Specifically, the high rates of dual alcohol and blunt use among African American adolescents and young adults, coupled with the unique sociocultural aspects of the use of these two substances, as described above, could at least partially contribute to the increased rates of alcohol dependence found among African Americans, despite lower rates of alcohol use. Additional studies are needed to examine blunt and alcohol comorbidity, including the mechanisms of action that promote co-use and prevention and treatment interventions that
target blunt and alcohol use and co-use among African American adolescents and young adults.

Although the current study used a nationally representative sample of African American adolescents and young adults to examine an understudied area of research, specifically the link between blunt use and alcohol dependence among youth who drink, there are some limitations that should be noted. First, current survey items on the NSDUH do not allow for a nuanced analysis of marijuana and blunt use. For instance, although it is clear that nonblunt marijuana users in this study did not report past year blunt use, the survey questions did not allow for an assessment of other marijuana use among blunt users. Moreover, the NSDUH only assesses one specific form of marijuana use (i.e., blunts). Given the differences found in the health effects associated with diverse marijuana consumption methods (e.g., blunts vs. joints; Cooper & Haney, 2009; Mariani, Brooks, Haney, & Levin, 2011), future studies should include items that assess specific forms of marijuana use (e.g., blunts, joints, edibles, vaping). Given that the current study was cross-sectional, future research is warranted that employs prospective study designs to examine whether there are developmental changes in both the frequency and quantity of alcohol use among the different alcohol and marijuana typologies and how that might impact risk for alcohol dependence, especially among African American adolescent and young adults. Overall, this study highlights the compounded health effects associated with the dual use of alcohol and a specific method of marijuana administration (i.e., blunts). The increased risk of alcohol dependence found among dual alcohol and blunt users can be used to inform and develop targeted prevention and treatment interventions, especially for young African American adolescents and young adults who use marijuana with alcohol.

Acknowledgments

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References


Public Policy Relevance Statement

Despite lower rates of alcohol use, African Americans have a higher risk of alcohol dependence compared to other racial/ethnic groups. Using data from a national sample of African American adolescents and young adults, this study found that relative to past year alcohol use only, alcohol and blunt use (rather than other forms of marijuana use) was associated with increased odds of alcohol dependence. It is important that policymakers understand the link between blunts and alcohol dependence among African American youth to inform regulations and policies related to marijuana and alcohol.
Table 1. Prevalence and Demographic Characteristics of Blunt and Nonblunt Marijuana Use Among African American Adolescent and young Adult Drinkers (Unweighted n = 11,124)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total Sample %</th>
<th>Alcohol Use Only 57.5% Unweighted (n = 6,401) %</th>
<th>Alcohol/Non-Blunt Marijuana Use 5.7% Unweighted (n = 632) %</th>
<th>Alcohol/Blunt Use 36.8% Unweighted (n = 4091) %</th>
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<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12–17</td>
<td>18.4</td>
<td>17.8</td>
<td>29.2</td>
<td>17.8</td>
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<tr>
<td>18–25</td>
<td>81.6</td>
<td>82.2</td>
<td>70.8</td>
<td>82.2</td>
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<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>52.0</td>
<td>57.1</td>
<td>50.8</td>
<td>44.2</td>
</tr>
<tr>
<td>Male</td>
<td>48.0</td>
<td>42.9</td>
<td>49.2</td>
<td>55.8</td>
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<tr>
<td>Education</td>
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<tr>
<td>Less than high school</td>
<td>12.6</td>
<td>10.0</td>
<td>15.3</td>
<td>16.3</td>
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<td>High school graduate</td>
<td>31.4</td>
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<tr>
<td>Some college</td>
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<td>31.7</td>
<td>21.5</td>
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<td>7.9</td>
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<td>Ages 12–17</td>
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<td>17.8</td>
<td>29.2</td>
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<tr>
<td>Family income</td>
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<tr>
<td>&lt; $20,000/year</td>
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<td>38.6</td>
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<td>$75,000 or more</td>
<td>12.3</td>
<td>12.9</td>
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<td>Past year cigarette use</td>
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<td>Past year other illicit drug use</td>
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<td>93.7</td>
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Note: Percentages are weighted, ns are not.