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Motivations and Consequences of Alcohol Use among Heavy Drinking Nonstudent Emerging Adults

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Abstract

Research suggests that nonstudent emerging adults may be at elevated risk for alcohol-related problems in adulthood. The present study utilized a qualitative approach to broaden our understanding of the drinking-related perceptions and experiences of heavy drinking nonstudents, with the ultimate goal of generating meaningful knowledge that could aid intervention planning. Research aims were to identify nonstudent (1) drinking motivations and (2) drinking consequences. Eleven focus groups were conducted (n = 64 participants). Data analytic techniques were used to code transcripts and generate themes emerging from the group data. Analyses revealed three main themes emerged regarding nonstudent reasons for drinking (i.e., emotional, social, enhanced experiences). Four prominent themes were identified for drinking consequences (i.e., physical health, psychological health, risk-taking, life functioning). Our findings underscore several considerations related to intervening with this at-risk and understudied population.

Keywords

Nonstudents; qualitative; alcohol use; drinking motivations; consequences

The prevalence of heavy drinking in the United States is highest among emerging adults (between ages 18–25) compared to all other age groups (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014). Heavy or “binge” drinking is defined as the consumption of 5 or more alcoholic drinks for men and 4 or more for women within about two hours (National Institutes on Alcohol Abuse and Alcoholism [NIAAA], 2004). It has been estimated that approximately 37.9% of emerging adults engaged in at least 1 binge episode (5 or more drinks) in the past 30 days (SAMHSA, 2014). The magnitude and extent of the negative consequences associated with heavy alcohol use among emerging adults,

particularly college students, are well documented. These consequences could result in impairments that are enduring and even fatal. For example, young adults between ages 21 to 24 represented the highest proportion (32%) of alcohol-impaired drivers involved in fatal crashes in 2012 (National Highway Traffic Safety Administration [NHTSA], 2013). Even more concerning, the rate of alcohol-related deaths escalated from 1998 to 2005 in this age group (Hingson, Zha, & Weitzman, 2009). Alcohol use also has been linked to higher rates of physical and sexual assaults, sexually transmitted diseases, unintended pregnancies, legal involvement, and short-term health problems (Hingson et al., 2009; see Wechsler & Nelson, 2008 for a review).

While our understanding of this risky behavior among emerging adults has evolved over the last two decades, much of this knowledge has been based on research with college students. A focus on nonstudents specifically is needed as conclusions drawn from college-based studies or from in-school samples may not be representative of nonschool populations (Crowley, 1991; Muthén & Muthén, 2000). Consequently, to gain a complete theoretical understanding of emerging adult drinking, it is necessary to broaden the scope of research to include nonstudents as problematic alcohol use is an issue relevant to a wide spectrum of emerging adults. The importance of focusing on nonstudents also is bolstered by research showing that lower educational attainment is linked to greater risk of alcohol-related harms both during emerging and later adulthood. Specifically, one study found that nonstudents are more likely to experience alcohol-related problems than college students, despite having similar rates of quantity, frequency, and heavy drinking (Barnett et al., 2003). A longitudinal investigation showed that nonstudents reported greater problems at age 18 and 30, but not at age 21 (White, Labouvie, & Papadaratsakis, 2005). The study authors suggested that nonstudents are less likely to mature out of problematic drinking, and subsequently, may be at a greater need than college students for prevention programming. These findings concur with those of Muthén and Muthén (2000) who found educational attainment to be a strong predictor in the development of heavy drinking and alcohol-related problems. In yet another prospective study, high school dropouts and high school graduates were found to be at highest risk for the development of alcohol dependence relative to respondents with higher education (greater or equal to 14 years of education; Harford, Yi, & Hilton, 2006). These findings underscore noncollege-attenders as an at-risk group for developing alcohol-related problems and that additional research focusing more intensively on nonstudent emerging adults is warranted.

Problem-behavior theory (Jessor, Donovan, & Costa, 1991; Jessor & Jessor, 1977) may provide one explanation for the connection between educational achievement and substance use. Educational pursuits are normative, conventional behavior for many during the emerging adult developmental stage (Arnett, 2000). A lack of accomplishments in this domain could serve as a risk factor or instigation for engaging in problem behavior (e.g., problem drinking, smoking, marijuana use, general deviant behaviors). According to problem-behavior theory, proneness to engage in problem behavior is determined by the balance of risk and protective factors across the environmental, personality and behavior systems of explanatory variables accounting for occurrence of a problem behavior in adolescents and young adults. The theory also asserts that involvement in any given problem behavior increases proneness or engagement in other problem behaviors (Jessor et al., 1991).

For nonstudents, low educational attainment (as part of the environment system), low value on or expectation for goal attainment (as part of the personality system), and low engagement in conventional behavior (as part of the behavior system; e.g., academic or occupational pursuits) are especially relevant risk and protective factors contributing to their proneness to engaging in problematic drinking, and thereby also heightening their likelihood of other problem behavior involvement. Indeed, prior research has found a strong link between substance use and academic achievement (Arria, Caldeira, Bugbee, Vincent, & O'Grady, 2015; Latvala, Rose, Pulkkinen, Dick, Korhonen, & Kaprio, 2014) and these two could serve as mutual risk factors (Fergusson, Horwood, & Beaudrais, 2003; Henry, 2010). Thus, theory and empirical evidence point to the problematic nature of these relationships and the possible impact this has on future opportunities and later stages development (Jessor et al., 1991). Emerging adults who do not attend college and who drink heavily are a particularly vulnerable group. Greater efforts to advance understanding of their drinking experiences are vital to inform intervention planning to minimize potential prospective consequences for this at-risk segment of the population.

Reasons for Drinking

There is a substantial body of work that has specifically focused on the motivational model of alcohol use (Cooper, 1994; Cox & Klinger, 1988) in understanding why emerging adults drink. Survey research has shown, primarily in college samples, that most emerging adults drink to be sociable or to enhance positive affect while drinking to cope is less common (Kairouz, Gliksman, Demers, & Adlaf, 2002; Kuntsche, Knibbe, Gmel, & Engels, 2005; LaBrie, Hummer, & Pedersen, 2007; Van Damme, Maes, Clays, Rosiers, Van Hal, & Hublet, 2013). However, drinking to cope with negative affect is especially related to negative outcomes (e.g., Cooper, Frone, Russell, & Mudar, 1995; Merrill, Wardell, & Read, 2014; Mezquita, Stewart, & Ruiperez, 2010) while drinking for reasons of social rewards, enhancing positive affect, and avoiding social rejection are less strongly tied to alcohol-related problems (Cooper, 1994; Martens, Rocha, Martin, & Serrao, 2008; Merrill et al., 2014). Qualitative investigations have found that college students drink as a way to enhance socialization, decrease inhibition, and increase bonding (Colby, Colby, & Raymond, 2009). Others have found social factors to be key reasons for drinking, including drinking to feel more confident (Orford, Krishnan, Balaam, Everitt, & van der Graaf, 2004), less socially anxious (Dodd, Glassman, Arthur, Webb, & Miller, 2010) as well as drinking in response to peer pressure (Emery, Ritter-Randolph, Strozier, & McDermott, 1993; Orford et al., 2004).

In directly comparing reasons for drinking between college and noncollege drinkers, one Australian study found no differences in drinking motivations based on educational status (Lyvers, Hasking, Hani, Rhodes, & Trew, 2010), while another study found nonstudents were more likely to drink to self-medicate or to cope with negative feelings (Barnett et al., 2003). Based on these prior findings, it is possible that an emphasis on drinking to cope with negative emotions by nonstudents stems from the social roles of this group. Nonstudents may have differing responsibilities and greater life demands than college students, including full-time employment, marriage, and/or parenthood (Paschall, 2003; Quinn & Fromme, 2011; White et al., 2005). They also may experience greater distress either directly or indirectly from not having yet accomplished the social developmental milestone of

attending/completing college (Kong & Bergman, 2010). These responsibilities and stressors could consequently translate to drinking as a way to cope. In general, despite this body of research, there is a scarcity of studies to date that focus specifically on reasons that nonstudent emerging adults drink and there are no prior investigations that utilized in-depth qualitative methodological approaches. Efforts to understand drinking motivations from their perspective may highlight areas of focus in intervention programming.

Drinking-related Consequences

As already noted, the prevalence and types of drinking-related consequences experienced by college students are well documented (e.g., Hingson et al., 2009). However, relative to the college drinking literature, there is substantially less research focused on harms experienced by nonstudents. A recent cross-sectional study found that the most commonly reported problems among nonstudents included hangovers, alcohol-related sicknesses, fighting, blacking out, and driving after drinking (Cleveland, Mallett, White, Turrissi, & Favero, 2013). Another study found that as compared to college students, nonstudents were more likely to experience alcohol-related injuries and to ride with a driver who was under the influence (Barnett et al., 2003). Some studies compared the general risk of alcohol-related harms based on college status. Findings suggested that nonstudents may be at a similar or heightened level of risk for experiencing alcohol consequences as college students (e.g., Harford et al., 2006), despite similar (Barnett et al., 2003) or lower rates of alcohol consumption (Quinn & Fromme, 2011). Importantly, nonstudents may be at greater risk for alcohol-related problems in adulthood and less likely to transition out of problematic drinking than their college-attending counterparts (White et al., 2005). An explanation for this increased risk for nonstudents may be gleaned from the behavioral economics perspective. Nonstudents may be at heightened risk due to overvaluing smaller, short-term rewards (e.g., immediate effects of drinking) and undervaluing larger, long-term achievements associated with not drinking or drinking less (e.g., vocational success; Bickel, Johnson, Koffarnus, MacKillop, & Murphy, 2014; MacKillop, Amlung, Few, Ray, Sweet, & Munafo, 2011). Given their vulnerabilities and because the differing responsibilities of nonstudents could result in experiencing more serious consequences than college students (e.g., skipping class versus missing a day of work, accountable for oneself only versus also caring for their child/partner), more in-depth research investigating harms experienced by nonstudents is needed.

The Present Study

The current investigation addresses nonstudent drinking using a qualitative approach. Specifically, our research questions were: (1) what are the reasons that nonstudents drink? and (2) what are the perceived negative consequences experienced from drinking by nonstudents? In general, we expected that nonstudents would endorse a range of reasons for drinking as guided by the motivational model of alcohol use (Cooper, 1994; Cox & Klinger, 1988), but most salient would be drinking as a means to cope. In addition, we expected a range of consequences but no specific hypotheses were formulated given the lack of prior research with nonstudents in this area. As noted, one of the limitations of prior research on drinking during emerging adulthood is that the majority of studies are based on college

drinkers. Because of the unique experiences and challenges that may be faced by nonstudents (e.g., greater life demands, familial responsibilities, work obligations, increased stress), findings from college students may not generalize to this population. Furthermore, the limited research focused on nonstudents is based mostly on large-scale quantitative survey studies (e.g., Monitoring the Future). While these epidemiological studies are helpful in providing prevalence estimates of behaviors, they are limited in their ability to provide an in-depth perspective on the experiences and needs of nonstudents. Prevention research on health-related behaviors, such as alcohol consumption, may be advanced by qualitative approaches (e.g., Corbin & Strauss, 2008) as they can provide unique opportunities to gather data to enable detailed study of a phenomenon when little is known. This approach would allow for the discovery of the full range of alcohol-related perceptions and experiences that reflect those of nonstudent emerging adult drinkers themselves given our lack of understanding of this at-risk population. Ultimately, findings may shed light on areas where intervention strategies are most relevant and effective for this underrepresented group.

Method

Study Design and Participants

Eleven focus group interviews were conducted with a sample of nonstudent emerging adults. Using purposive sampling, sixty-four participants (35 men) were recruited from the community of a mid-size southeastern city in the U.S. between June and October 2011. Recruitment strategies included newspaper, online postings, and flyers. Advertisement materials instructed potential participants to contact the researcher via e-mail or telephone. Upon contacting the researcher, participants were screened over the telephone for inclusion in the study. Participants contacting the researcher during non-study hours were instructed to provide a callback number with their calls being returned within two days.

To be eligible, participants had to be between ages 18 and 25 years, had no history of college attendance (including community college, trade/vocational school), consumed fewer than 40 drinks weekly and had no history of alcohol treatment, and engaged in at least two heavy drinking episodes (4+/5+ drinks for women/men) in the past month. The rationale for the heavy drinking inclusion criteria was based on two factors. The current research was conducted as a means to inform intervention development for heavy drinking nonstudents; thus, we wanted our focus group participants' drinking patterns to resemble those with whom we intend to intervene (i.e., heavy episodic drinkers); consequently, we selected our participants based on heavy drinking criteria used in prior intervention research with heavy drinking emerging adults (e.g., Collins, Carey, & Sliwinski, 2002). Further, engaging in at least two heavy drinking episodes over the past 30 days is consistent with the criteria established by Wechsler, Davenport, Dowdall, Moeykens, and Castillo (1994), which defines high-risk drinking as either the consumption of five or more drinks on one occasion in the past 2 weeks or the consumption of five or more drinks for men/four or more for women on one occasion.

Sample characteristics—The mean age of the sample was 21.87 ($SD = 2.12$) years. The majority of participants were single/never married (64.1%). Employment status was 32.8%

unemployed, 42.2% full-time, and 21.9% part-time; 3.1% did not respond. Sample ethnicity was 57.8% African-American, 28.1% Caucasian, 1.6% Hispanic, 1.6% Native American, 6.3% “other” or bi-racial, and 4.7% did not respond. Median individual income was between \$10,000 to \$20,000/year. Additionally, 36.6% reported being a parent to at least one child.

Procedure

Focus group discussions were led by the first author and the second author was present to take notes. Discussions were semi-structured and used a standardized script with broad questions followed by open-ended probes (e.g., “What are some of the reasons that young adults drink alcohol?”; “What are the most common *problems* (i.e., negative consequences) that young adults experience as a result of drinking?”).

Participants were assigned to one of five all-female groups or one of six all-male groups. Groups were gender consistent as to allow for exploration of potential gender differences in themes. Each focus group session lasted approximately 1–1.5 hours and consisted of 4 to 8 participants. Sessions were audio recorded and later transcribed for analysis. Participants signed informed consent upon arrival to the study. Following the focus group discussion, each participant responded to a survey that included questions regarding demographic factors as well as typical alcohol consumption. Participants were compensated \$60 each for their time. This study was approved by the university’s Institutional Review Board before data collection occurred and followed American Psychological Association (2002) guidelines.

Analytic Strategy

Qualitative data analytic techniques were used to code transcripts and generate themes emerging from the group data (Braun & Clarke, 2006; Krueger, 1998). The thematic analysis approach was taken as it allows for identifying and describing patterns within the data, reflecting the experiences and reality of participants (Braun & Clarke, 2006). Interviews were digitally recorded and transcribed verbatim. ATLAS-Ti qualitative data analysis computer software was used to assist with code entry, indexing and analysis. Groups served as the unit of analysis.

The generation of codes for analysis was guided by prior theory and research. In particular, the motivational model of alcohol use (Cooper, 1994; Cox & Klinger, 1988) provided a basis for coding content related to reasons for drinking. The model suggests that drinking motives can be categorized into two dimensions reflecting the valence (positive, negative) and source of the outcome (internal, external). When crossed, these dimensions result in four types of motives: enhancing positive affect, gaining social rewards, coping with negative affect, and avoiding social rejection. These categories helped serve as a foundation from which to develop our coding scheme on drinking motives and are reflected throughout in our analyses. The coding of negative consequences of drinking was guided by prior research with emerging adults, albeit mostly with college drinkers. The negative harms previously documented from college student samples ranged in severity and included social-interpersonal problems, regretful actions, risky sexual outcomes and alcohol-related injuries (Hingson, Heeren, Winter, & Wechsler, 2005; Hingson et al., 2009; Wechsler, Lee, Kuo, &

Lee, 2000). Two prior investigations of nonstudent emerging adults found consequences related to hangovers, alcohol-related sicknesses or injuries, fighting, blacking out and driving or riding with someone under the influence (Barnett et al., 2003; Cleveland et al., 2013). These previously documented types of alcohol-related harms provided a basis for coding the transcripts, many of which were discussed by our focus groups as presented in the Results section.

For data analysis, a three-step coding process was used. First, an initial code dictionary was developed based on theory, research, and initial review of focus group session notes. Each time a code was created, its meaning and parameters along with descriptive examples were documented into an emerging dictionary that continued to build throughout the coding process. The transcript raters discussed the coding scheme and definitions to arrive at a common understanding of the codes. In the second step, the raters read and independently coded each transcript. Each rater coded according to the initial dictionary, developing additional codes as needed to reflect the data in the transcripts. In the third step, raters met to compare the independent codes. Discrepancies were discussed until consensus was reached. Final modification of the coding scheme to be used on each transcript was determined and transcripts were then re-coded using the final coding scheme. Kappa agreement ranged from .84 – 1 for the coding categories for four (i.e., 2 men and 2 women groups) randomly selected subset of the transcripts (see Tables 1 and 2).

Results

Reasons for Drinking

Thematic analysis of the transcripts revealed three main themes for reasons why nonstudent emerging adults drink, each of which included two to three subthemes (see Table 1). Nonstudent emerging adults' reasons for drinking spanned the following domains: emotional, social, and enhanced experiences.

Emotional—Groups universally expressed drinking for emotional reasons. Within this theme, two primary subthemes emerged. All groups reported drinking for stress reduction and to cope with negative emotions. Specifically, across all focus groups (100%; 11/11 groups), drinking was viewed as a way *to reduce tension, to relieve stress or to relax*. The source of this stress was viewed as stemming from the various responsibilities of their daily lives. Drinking was perceived as a way to deal with work-related stress, such as a reward after a hard, long day at work. One participant expressed drinking as a way to recover from the pressures of work:

In a sense because like I said if you go to work and get off work all day and you just might wanna have a beer, just sit back and relax and just get your thoughts together for a minute before you gotta wake up to do it all over again. (Male, 23, Group #4)

Groups also characterized drinking as a way to manage stress associated with having multiple life responsibilities (e.g., parenting, financial responsibilities):

You got bills to pay, you got a job, you got kids, you got Pampers. You got Pampers, you know what I'm saying? That you gotta buy for the kids, yeah. (Male, 20, Group #1)

Drinking to cope with negative emotions was a heavily cited reason for drinking across groups (91%; 10/11 groups). These negative emotions included when they felt angry, upset, or bored. Drinking also was a means to avoid feeling emotions in general. One participant expressed how drinking can help him escape from and avoid unpleasant thoughts:

Person 4 Sometimes to push, like get all the negative things in your mind out of your mind. Like your feelings and all that, just don't really wanna think about 'em. You don't wanna think about what's going on, so just drink and push it out the way. (Male, 20, Group #1)

Person 5 I mean, we've heard it so many times, drinking underage isn't the cool thing, but in the very end it's what you think in your mind and saying oh you know what? This is how I believe I could relieve some kind of stress from the week and then just start all over Monday, but it's—I don't know... (Male, 20, Group #1)

Social—A dominant theme that emerged as a reason for drinking was related to social or interpersonal factors. Several sub-themes emerged which included drinking to facilitate social interactions, drinking in response to peer pressure or to “fit in”, and having social access to alcohol via their relationships. For *social facilitation*, most groups (91%; 10/11 groups) noted that alcohol served as a social lubricant allowing them to socialize with others and relax in a social context. For others, alcohol use was particularly relevant when trying to quell anxiety related to their attempts to meet new romantic partners in social situations.

Usually with me it's more social situations make me nervous, so I don't know. I'm not as uptight when I'm drinking. (Female, 23, Group #5)

Across many groups (91%; 10/11 groups), participants indicated that they drink because of *social exposure or availability of alcohol*. They described situations where readily available alcoholic drinks in social situations increased their propensity to drink.

...if you're trying to stop and your roommates have it in the house all the time...I mean if it's there, the temptation is there to drink it. If you're not around it, then it's easy for you to stop. (Male, 23, Group #7)

Another frequently cited social aspect (82%; 9/11 groups) was their desire to drink *to conform or to fit in* with their peers. The following dialogue illustrated this theme:

Person 6 Yeah, if everyone's sitting around you with a beer you're not gonna be the only person sitting there just like with your arms crossed. (Male, 23, Group #7)

Person 7 I was at a party the other night trying not to drink and everybody's drinkin' and I'm just like it's impossible. Everybody's you wanna beer, you wanna beer? I'm like nah, nah and then finally by the end of the night I was just like ahh. (Male, 20, Group #7)

Person 8 It got a lot to do with the people your around for real sometimes. Because they drinkin' and it's like they like there ain't nothing wrong with it. (Male, 24, Group #7)

Enhanced experiences—Participants in all groups commented that they drink as a way to enhance various experiences and mood. Among these experiences were drinking to have fun, to enhance personal activities like watching television or playing video games, and to get drunk or “buzzed.” The majority of groups (73%; 8/11 groups) noted that drinking was a way *to make things more fun* and it is difficult to “party” or have fun without drinking.

Just makes stuff usually more fun when you drink...even if you're not at a party or something, even if you're just hanging out with two people, three people at a house, I mean it's just more fun if you're drinking. (Male, 22, Group #9)

Many groups (55%; 6/11 groups) expressed that alcohol *enhances typical recreational activities*, like playing video games or watching television.

I drink and game a lot, like drink and play video games. I do that...I'll get buzzed and play World of Warcraft. (Male, 23, Group #7)

There was some discussion across groups (36%; 4/11 groups) that they drink simply *to get drunk or to get a buzz*.

[Drinking to] get that nice little calm buzz, or it can be to the point where you just don't want to remember the night, or the weekend. (Female, 22, Group #10)

Consequences from Drinking

Participants across all groups freely discussed a range of harmful consequences associated with alcohol use (see Table 2). Four primary themes emerged relating to adverse drinking consequences experienced by nonstudent emerging adults: physical health, psychological health, risk-taking, and life functioning.

Physical health—A prominent theme of drinking consequences related to harm of one's physical health. Three subthemes emerged from this primary theme: acute adverse health effects, alcohol dependence, and related conditions/injuries. The most common physical health consequence (present in 91% or 10/11 groups) was *acute adverse health effects* from drinking. A frequently cited acute outcome was experiencing blackouts. Participants also stated experiencing hangovers, throwing up or passing out, and alcohol poisoning.

Drink so much you black out or you gotta have your friends tell you what happened the next day. (Male, 20, Group #4)

Somewhat less often, groups (45%; 5/11 groups) recognized *alcohol dependence* as a more serious consequence of drinking. Their discussion of this negative outcome reflected a view that this is a consequence that others, rather than themselves, experience from excessive alcohol use. Thus, they were aware that drinking could lead to alcohol dependence for others, but they discounted it as a possible consequence for themselves.

I got a friend going through it right now. She's like dependent on alcohol. She just admitted to me the other night that she needs a bottle of wine every night to go to sleep. (Male, 24, Group #1)

Some groups (36%; 4/11 groups) cited consequences from drinking that involved *related conditions/injuries*, like liver problems or physical injuries resulting from poor coordination after heavy drinking.

It was like we was a hotel party and the last cup that he gave me was like I was walking dead, y'all. I was trying to get out the car so I was messed up. I kept falling on my face repeatedly, like face down, concrete, like five times. Every time I went to take a step, I was like boom. (Female, 24, Group #3)

Psychological health—Another dominant theme related to drinking was its impact on psychological health. Under this primary theme, five subthemes emerged that reflected various aspects of psychological functioning. These included aggression, personality changes, relationship conflicts, global reputation, and lack of motivation. The most frequently cited psychological health consequences were exhibiting aggression and experiencing personality changes. Regarding the issue of *aggression*, all groups (100%; 11/11 groups) spontaneously expressed that drinking excessively can lead to physical or aggressive altercations. The following dialogue illustrated this theme:

Person 1 Fighting. Fighting is a big thing. (Female, 24, Group #3)

Person 2 Yeah, fighting. (Female, 21, Group #3)

Person 3 I don't know how people get drunk and wanna fight. I don't get it. (Female, 23, Group #3)

Person 1 ...you know, you drink and your alter ego come out. I can sit and talk wit' you all day but when I drink, like you, how you lookin' at me now I might be like why is this girl lookin' at me like that? It's like a whole 'nother, and you're not even doin' it, you're just looking at me talk. It's like a whole 'nother side.

Person 2 Some people, yeah.

Person 1 She stepped on my shoe. She pulled my hair. Like, here comes security. [Laughter]

Most groups (82%; 9/11 groups) noted experiencing *personality changes* or acting out of their normal character when drinking. One element of this change was characterized by increasing obnoxious behavior, including being louder and more talkative. Some groups indicated having less control of their emotions, which they believed sometimes resulted in irrational behavior. Another aspect of personality change described by study participants was feeling less inhibited when drinking, which they believed sometimes resulted in them doing things that they normally would not do when sober.

It can take over you, it can make you a different person. Some people – like people that don't drink and then they be exposed to it like they might do like something like they wouldn't – like make them do stuff you wouldn't normally do if you weren't drunk or if you were sober. (Male, 23, Group #4)

While less common (present in 45% or 5 out of 11 groups), another psychological consequence from drinking mentioned by some was *relationship conflicts* with friends, romantic partners and family members.

Yeah, like loss of friendships. Like if you get really wasted one night and like you get in a fight with your friends or stuff or you just say stuff you don't mean you can't take it back. (Male, 20, Group #7)

A minority of groups (36%; 4/11 groups) commented that drinking led them to do things that could hurt their *global reputation*, such as acting like a "sloppy drunk", not being "ladylike", acting like "a fool", or being "made a joke of."

Can mess with your reputation a lot. I mean, I know some guys that just nobody wants to hang out with because they get, they'll just get so drunk that they just do something stupid, doesn't matter what it is, but they'll do something stupid. (Male, 22, Group #9)

Finally, there was some discussion (present in 27% or 3/11 groups) that drinking could lead to a *lack of motivation* in their daily lives.

Yeah, but like a typical night, if you drinking, like if you drink during the week, you really gonna wake up in the morning to do what you supposed to do? (Female, 24, Group #11)

Risk-taking—Another primary theme that emerged as a consequence of drinking was engaging in various risk-taking behaviors. Among the most common sub-themes reported by participants were engaging in risky driving, having impaired judgment or poor decision-making that resulted in regretful actions, and entering into risky sexual encounters. *Risky or drunk driving*, perhaps the most serious of the risk-taking behaviors, was a frequently cited harm (present in 82% or 9/11 groups) and most were aware of the potential consequence this had for themselves and bystanders.

Like have a couple of drinks, look at your car and be like I can drive this. Then you're running all over the road. (Male, 20, Group #4)

A number of groups (73%; 8/11 groups) expressed that drinking could lead to having *impaired judgment* or poor decision-making. While some discussed the effect of alcohol on general decision-making, others discussed poor decision-making with regard to specific social behaviors such as texting or calling people while they were intoxicated.

A lot of lapse in judgment. (Male, 20, Group #4)

Finally, a number of groups (64%; 7/11 groups) mentioned engaging in *risky sexual behaviors* after drinking. These acts include having unprotected sex, unplanned sex, or sex with individuals they normally would not have.

Going home with people that you don't intend to go home with. (Female, 22, Group #8)

Life functioning—Finally, while relatively less common than the other primary themes for alcohol consequences, there was some discussion of the harms related to impairments in life

functioning, including financial, legal, and occupational domains. There was discussion across some groups (36%; 4/11 groups) that specifically addressed the negative impact drinking had on their *financial* situation. They indicated often spending their limited funds on alcohol and, at times, sacrificing other needs to be able to purchase alcohol.

Financial problems. Every time you catch happy hour every day and you only make X amount of dollars a hour and you're not able to supplement your drinking, you're not gonna be able to eat. You be too busy drinking. (Male, 24, Group #1)

Some groups (36%; 4/11 groups) noted that drinking could lead to *involvement with the law* such as getting arrested. Some reasons cited for getting arrested may be domestic abuse, disturbing the peace, or getting into fights.

The fights, the fights that gets you to jail. (Female, 24, Group #11)

Finally, participants from several groups (27%; 3/11 groups) noted that drinking sometimes led to interference with their *occupational functioning* including not showing up for work and being terminated as a result.

I knew I had to be to work at 4:00 in the morning. I partied that whole night. I laid down at 3:30 a.m. and didn't wake back up 'til 3:00, 5:00 in the afternoon...I don't work there no more so that was part of it. (Male, 20, Group #1)

Discussion

This study offered the unique opportunity for an in-depth examination of the drinking motivations and negative consequences of a community-based sample of heavy drinking nonstudent emerging adults. Results revealed three primary themes regarding nonstudent drinking motivations. A prevalent motivation for drinking expressed in all focus groups was drinking for emotional reasons, including as a means of coping with unpleasant emotions such as anger, sadness, and boredom. They also noted that they often relied on alcohol as a way to relax or reduce tension and stress. They characterized this stress as emanating from various domains of their daily lives, often times resulting from multiple and competing life demands and responsibilities (e.g., employment, parenting, and/or marriage/cohabitating stressors). In fact, the impact on drinking from having multiple life obligations may be particularly relevant for nonstudent versus college emerging adults, as among the current study participants, 33.3% were parents, 29.1% were married/cohabitating, 68.3% were employed, and 38.3% had incomes below \$10,000 annually while having little to no financial support from their families. Given these statistics, it is possible that this sample may experience an elevated level of stress that could impact their alcohol use. Supporting this idea are studies that have compared college students with nonstudents and found that nonstudents have relatively higher rates of marriage/cohabitation (20% versus 3.5%; White et al., 2005) and employment (64.3% versus 79.9%; Paschall, 2003) as well as a higher percentage of those working over 30 hours per week (66% versus 39%; Slutske et al., 2004). These more frequently occurring potential life stressors experienced by nonstudents may be contributing factors to the differential risk for problem drinking between student and nonstudent emerging adults.

A particularly notable theme that emerged was related to drinking to cope in this population, a core drinking motive consistent with the motivational model of alcohol use (Cooper, 1994; Cox & Klinger, 1988). Prior research has found that drinking to cope with negative emotions is linked to poorer outcomes including prospective prediction of alcohol dependence (Carpenter & Hasin, 1998; Crum et al., 2013). Further, individuals who endorsed stronger drinking to cope motives and reported higher stress had the highest frequency of heavy drinking (Abbey, Smith, & Scott, 1993). It also has been shown that more drinking occurs on stressful days compared with low-stress days among men who anticipated positive alcohol outcomes (Armeli, Carney, Tennen, Affleck, & O'Neil, 2000). Thus, drinking as a way to cope, particularly if faced with a number of life or daily stressors, could place nonstudents at risk for problematic drinking and alcohol use disorders. While some college students have discussed drinking as a way to cope, they discussed it in terms of drinking after studying or getting off work (Colby et al., 2009). Nonstudents from our focus groups noted that a source of the stress they experienced stemmed from having multiple responsibilities, including the demands of being a parent and meeting financial obligations. Thus, while both college students and nonstudents discussed drinking as a way to cope, the source of their stress may be qualitatively different. This difference may translate to differential drinking behaviors. Further, prior research has shown that many college students are more motivated to drink for social and enhancement of physical and emotional effects relative to coping reasons (e.g., Kairouz et al., 2002; LaBrie et al., 2007; Read, Wood, Kahler, & Maddock, 2003). Nonstudents in our study spoke of drinking for social facilitation also but discussed drinking to cope as another dominant theme. Thus, although nonstudents share a commonality with college students to drink for socialization and bonding, nonstudents may place a particular emphasis on drinking as a means to cope with negative emotions and to reduce stress as indicated by our findings and supported by prior research (Barnett et al., 2003). This desire to drink to cope may be one possible explanation for the finding that noncollege emerging adults are less likely to mature out of problem drinking in adulthood compared to college peers (White et al., 2005). Consequently, for nonstudents, managing stress effectively and finding more adaptive coping strategies may be particularly germane and could serve as a potential component of a targeted drinking intervention for this group.

As previously noted, a core motivation for drinking by nonstudents that was expressed universally across all groups was related to the social or interpersonal aspects of drinking. Participants emphasized that they drank for the positive social lubrication effects of alcohol, which allowed them to socialize and be more relaxed around their peers. Alcohol was consumed because participants thought that it facilitated social interactions, thus making it a powerful external motivator. Alternatively, participants discussed drinking as a negative external motivator as well. They indicated that they frequently perceive active and passive social pressures to drink. They described situations in which this happened whereby others were drinking and the participants did not want to feel "left out" or they thought it would help them fit in better with the peer group. These positively (gaining social rewards) and negatively (avoiding social rejection) reinforcing outcomes are in support of the motivational model (Cooper, 1994; Cox & Klinger, 1988).

The importance of peer or social factors among nonstudents is supported by prior research showing that their perceptions of peer drinking is related to their own alcohol use and harms

experienced (Lau-Barraco & Collins, 2011), though less so when directly compared with their college-attending counterparts (Quinn & Fromme, 2011). A number of studies have found social reasons for drinking (Kuntsche et al., 2005; LaBrie et al., 2007) and peer factors (e.g., Borsari & Carey, 2001; Boyd, Corbin, & Fromme, 2014; Cruz, Emery, & Turkheimer, 2012; Reifman, Watson, & McCourt, 2006; Stappenbeck, Quinn, Wetherill, & Fromme, 2010) to be associated with the alcohol use of college students. Thus, it appears that the social aspects of drinking, including the emphasis on peers and a desire to drink to obtain interpersonal rewards, may be reflective of a common theme among drinkers during the emerging adulthood developmental stage regardless of college status.

In addition to exploring key motivations of drinking, another primary aim of the present study was to gain an in-depth understanding of the various negative consequences experienced by nonstudents from drinking. Participants were specifically asked to discuss the most common problems experienced as a result of drinking. While our findings on the motivations behind nonstudents' drinking suggest that they drink in hopes of achieving a variety of positive outcomes (e.g., more social, more fun), those positive effects actually may be accompanied by an array of negative consequences. Specific to physical consequences, participants discussed drinking-related harms that span from relatively minor to life-threatening events. Compared to more immediate and acute physical consequences (e.g., vomiting, blackouts), there was a lack of emphasis on the longer term outcomes of drinking (e.g., organ failure, alcohol dependence). This is in line with prior literature suggesting that emerging adults do not always consider the potential long-term consequences of their behaviors perhaps due to an optimistic bias (Arnett, 2005; Weinstein, 1989). Another explanation for this finding may be derived from the behavioral economics literature, suggesting that users value immediate rewards of drinking (e.g., stress reduction, pleasant feelings, socialization) over delayed rewards associated with abstinence (e.g., long-term health outcomes; e.g., Bickel et al., 2014; MacKillop et al., 2011). This delay discounting, or devaluing future outcomes or rewards, may be particularly evident in nonstudent emerging adults given that individuals who are younger with lower income and education tend to exhibit more impulsivity (Reimers, Maylor, Stewart, & Chater, 2009).

It may be interesting to note that there was little discussion of the role drinking has on their attainment of certain life goals, including their occupational or academic aspirations. For many in emerging adulthood, this developmental stage is characterized by school attendance and/or preparing for various career options. But surprisingly, only 27% of the focus groups spontaneously mentioned this topic, and there was only one instance of a participant commenting on the impact drinking had on his work performance. Consistent with problem-behavior theory, this lack of apparent connection may reflect a low value on goal achievement and low expectations for goal attainment which can then instigate problem-behavior proneness, such as problem drinking. From a behavioral economics perspective, drinking may be overvalued relative to other rewards (e.g., Bickel et al., 2014). Thus, nonstudents may have a preference for the short-term advantages of drinking over future, and likely more substantial, rewards of not drinking, including vocational achievement and work success. Given these possibilities, it may be useful in working with nonstudents to foster goal striving/goal-directed behavior and increase the salience or value of delayed

outcomes associated with choosing not to drink or drinking less (Murphy, Skidmore, Dennhardt, Martens, Borsari, Barnett, & Colby, 2012).

Another major theme of negative drinking consequences related to psychological outcomes. The problem most frequently expressed by participants was that drinking excessively can lead one to behave aggressively. Indeed, prior quantitative research supports the notion that alcohol facilitates aggressive behavior and that certain contextual risk factors moderate alcohol-related aggression, such as higher blood alcohol concentration levels and consumption of distilled beverages (for reviews see Bushman & Cooper, 1990; Exum, 2006). Given this research and the occurrence of alcohol-related aggression among our heavy drinking nonstudents, interventions may focus on helping them identify contextual risky situations for aggression when drinking. Finally, another category of problems commonly expressed by groups was related to engaging in risky behaviors, including driving while intoxicated and unsafe sexual practices.

In general, the types of alcohol-related consequences experienced by nonstudent heavy drinkers may not necessarily be qualitatively different compared to college age peers (e.g., fights, blackouts, hangovers, risky sexual behaviors, drunk driving). However, prior research supports the notion that nonstudents actually may be more vulnerable to drinking-related problems. While the current investigation did not directly compare drinking consequences between college and noncollege-attenders, previous investigations have demonstrated that nonstudents tend to experience more alcohol-related harms despite drinking at similar (Barnett et al., 2003; White et al., 2005) or even lower levels (Quinn & Fromme, 2011) as college students during emerging adulthood. Nonstudents also are at higher risk for experiencing the negative consequences of drinking into adulthood as compared to college-attenders (Harford et al., 2006; Muthén & Muthén, 2000). Thus, it is possible that the college environment serves as a protective factor buffering against some of these harms or that the multiple life stressors experienced by nonstudents accumulate and persist past emerging adulthood that continues to impact their motivation to use alcohol later on. Furthermore, because excessive drinking could heighten nonstudents' proneness to engage in other problem behaviors, including other substance use (Jessor et al., 1991), timely and tailored alcohol interventions could have the potential to minimize both personal and society costs associated with hazardous drinking.

Implications

The current study findings underscore several considerations related to intervening with this at-risk population. First, given the range of alcohol-related problems expressed by participants in our focus groups, interventions consistent with a harm reduction model may be especially suitable for this population. For nonstudents, this approach could pay particular attention to the physical and psychological consequences, as well as risk-taking behaviors noted by our focus group participants. These include minimizing the experience of blackouts, alcohol poisoning, physical aggression, interpersonal conflicts, and impaired driving. Another intervention consideration is the focus on both the positive and negative dimensions of drinking. While participants talked about drinking as a way to achieve certain positive outcomes, these positive outcomes appeared to be accompanied by a host of

negative consequences. Thus, intervention work with nonstudents may wish to highlight both the pros and cons of drinking. The decisional balance exercise from the motivational interviewing approach (Miller & Rollnick, 2002) may be used to develop discrepancy by highlighting the costs of drinking and benefits of drinking less as a way to enhance motivation to change their alcohol use patterns. From a problem-behavior theory and behavioral economics perspective, nonstudents may undervalue vocational and educational success in order to attain the short-term benefits of drinking (e.g., MacKillop et al., 2011). This lack of goal achievement may, in turn, increase the likelihood of engaging in heavy alcohol use (Jessor & Jessor, 1977; Jessor et al., 1991). Thus, for nonstudents, there may be benefit in fostering goal-directed behavior such as academic or occupational achievements. There also could be value in emphasizing the immediate costs of drinking on life functioning, including impact on their financial circumstance (e.g., limited funds being spent on alcohol or sacrificing other needs to afford alcohol) and occupational performance (e.g., being terminated for not showing up to work due to drinking) as well as increasing the salience of long-term rewards (e.g., goal attainment). While there is now considerable evidence supporting the efficacy of approaches such as harm reduction and motivational interventions with college student drinkers (Carey, Scott-Sheldon, Carey, & DeMartini, 2007; Larimer & Crouce, 2007; Scott-Sheldon, Carey, Elliott, Garey, & Carey, 2014), there is a surprising absence of research devoted to examining these strategies with nonstudent emerging adults; thus, little is known empirically regarding how well they may work and how these interventions may be structured to target nonstudents. The findings from the present research appear to support the promise of extending these approaches to nonstudents.

As noted earlier, a prominent theme that emerged from the focus groups is the use of alcohol to cope and to relieve stress. Therefore, another implication of our findings for working with heavy drinking nonstudents is encouraging more adaptive ways of coping and discussing ways to manage stress, particularly to deal with the multiple stressors they reportedly experience (e.g., parenting responsibilities, financial difficulties, work-related stress). This emphasis could be especially important for nonstudent than college drinkers as nonstudents are more likely to drink to self-medicate (Barnett et al., 2003). Thus, the immediate and prospective risks associated with drinking to cope (e.g., risk for alcohol use disorders; Abbey et al., 1993; Carpenter & Hasin, 1998; Crum et al., 2013) could be highlighted in intervention work by providing personalized feedback to the individual of their risk and exploring alternative strategies to cope with stressors.

Finally, perhaps unsurprisingly, social and peer factors appear to be central in motivating the drinking of nonstudents. The emphasis on social relationships is a common factor that appears to transcend educational attainment for this stage of development. Because of this emphasis on peer factors, they may be more susceptible to using external sources as reference for their drinking. Thus, as a component of intervention programs, providing normative drinking comparisons based on data from their same age group and educational status may be useful.

Limitations

Our findings should be interpreted with caution given several limitations of the study. The goal of the present investigation was exploratory and descriptive in nature. Survey studies with larger nonstudent samples are needed in order to corroborate the validity and generalizability of study results. In addition, the disproportionate representation of African-American participants in our study (58%) should be taken into consideration. Another limitation relates to our participant sampling. Our community-based sample of focus group participants was limited only to those who saw and responded to our recruitment ads. Further, we were specifically interested in heavy drinking nonstudent emerging adults in the present study, and thus, the current findings may not generalize to nonstudents who do not drink heavily. While the use of a focus group approach offered unique strengths in the present study, it may have also presented a limitation such that participant responding could have been influenced by social desirability. Finally, readers should exercise caution in comparing the current study findings to those found in previous research on nonstudent alcohol use, given that operational definitions of a “nonstudent” have varied greatly in the existing literature (Carter, Obremski Brandon, & Goldman, 2010). Despite these limitations, however, we believe that the current study provides unique insights into the perceptions and experiences of nonstudents. Our findings underscore several considerations in designing alcohol interventions as to maximize its efficacy for this at-risk and understudied group of drinkers.

Conclusion

The current investigation sought to gain an in-depth perspective of the drinking-related experiences of nonstudents. Nonstudents indicated drinking as a way to cope with negative emotions, as means to reduce tension, for positive social lubrication effects that help facilitate peer interactions, and to enhance experiences. Further, nonstudents discussed drinking-related consequences pertaining to their physical health from both a shorter and longer term perspective. Drinking also could lead to greater aggressiveness, changes in personality and promotion of other risk-taking behaviors. Finally, drinking could interfere with various aspects of life functioning. The information learned from this study may inform the tailoring of an alcohol intervention specifically designed for nonstudent heavy drinkers that targets these motivational domains and consequences experienced.

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Table 1

Coding Categories for Reasons for Drinking

Coding Category	Cohen's K (% Agreement)	Percent and Number (out of 11) of Groups Category was Present	Description of Coding Category
<i>Emotional</i>	<i>.97 (99%)</i>	<i>100% (11)</i>	
To reduce tension, to relieve stress or to relax		100% (11)	Drinking provides a way to relieve stress, to relax, or to "loosen up"
Drinking to cope		91% (10)	Drinking as a way to cope with or avoid negative thoughts or emotions such as when upset, sad, or angry
<i>Social</i>	<i>.97 (99%)</i>	<i>100% (11)</i>	
Social facilitation		91% (10)	Drinking to facilitate or promote social interactions; drinking allows one to feel more at ease and relaxed in social situations
Social exposure or availability of alcohol		91% (10)	Drinking in response to having easy access or being exposed to alcohol through family, friends, or roommates
To conform or to fit in		82% (9)	Drinking in response to peer pressure; drinking as a way to conform or to "fit in" with peers
<i>Enhanced experiences</i>	<i>.94 (98%)</i>	<i>100% (11)</i>	
To make things more fun		73% (8)	Drinking as a way to "party", celebrate or "just to have fun"
Enhances typical recreational activities		55% (6)	Drink while playing video games or watching television as a way to enhance these activities
To get drunk or to get a buzz		36% (4)	Drinking is simply a way to achieve a "buzz" or to "just get drunk"

Table 2

Coding Categories for Consequences from Drinking

Coding Category	Cohen's K (% Agreement)	Percent and Number (out of 11) of Groups Category was Present	Description of Coding Category
<i>Physical health</i>	.87 (96%)	100% (11)	
Acute adverse health effects		91% (10)	Experiencing acute problems from immediate consumption including vomiting, blackout, alcohol poisoning, and hangovers
Alcohol dependence		45% (5)	Recognition that heavy drinking could lead to dependence on alcohol
Related conditions/injuries		36% (4)	Drinking could lead to physical harm including damage to one's organs and bodily injury due to poor coordination from intoxication
<i>Psychological health</i>	1 (100%)	100% (11)	
Aggression		100% (11)	Drinking excessively leads to physical and aggressive altercations
Personality changes		82% (9)	Experiencing changes in personality and acting out of character, including being more loud or talkative, out of control, erratic, emotional, and disinhibited
Relationship conflicts		45% (5)	Experiencing conflicts or having arguments with friends, partners, or family members due to their drinking
Global reputation		36% (4)	Engaging in acts that could hurt their global reputation, including acting like a "sloppy drunk" or being "made a joke of"
Lack of motivation		27% (3)	Drinking could result in losing the general motivation or desire to fulfill work obligations or to pursue academic goals
<i>Risk-taking</i>	.94 (98%)	91% (10)	
Risky or drunk driving		82% (9)	Driving while under the influence of alcohol that could result in serious harms for themselves and others
Impaired judgment		73% (8)	Engaging in poor decision-making or having general poor judgement
Risky sexual behaviors		64% (7)	Having unprotected and unplanned sex or having sex with individuals they normally would not if sober
<i>Life functioning</i>	.84 (97%)	73% (8)	
Financial		36% (4)	Experiencing financial hardships because existing limited funds are spent on alcohol
Involvement with the law		36% (4)	Being arrested for domestic abuse, disturbing the peace, and getting into physical fights
Occupational functioning		27% (3)	Interference with their jobs including not showing up for work and being terminated as a result