Aspirational Brand Choice and Underage Alcohol Use

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ABSTRACT. Objective: Marketing aims to foster brand allegiance, and alcohol is a heavily marketed commodity. We hypothesize that exposed youth who are able to identify an aspirational alcohol brand will be at higher risk for underage drinking. **Method:** U.S. youth ages 15–20 ($N = 2,012$; 51% female) were surveyed twice in 2011–2013. Aspirational brand was assessed by asking, “If you could drink any brand you want, what is the name of the brand of alcohol you would choose?” Multivariable logistic regression tested associations between having an aspirational brand at baseline and onset of ever, binge (≥ 6 drinks/occasion), and hazardous drinking (Alcohol Use Disorders Identification Test–Consumption ≥ 4). **Results:** Baseline ever, binge, and hazardous drinking prevalence was 55%, 26%, and 19%, respectively; 47% reported having an aspirational brand, of whom 20% were nondrinkers. Top five reported brands were Budweiser, Smirnoff, Corona, Jack Daniels, and Bacardi,

all heavily advertised brands. Older age, male gender, sensation seeking, and peer/parent drinking were associated with having an aspirational brand. After we controlled for these confounders, having an aspirational brand was independently associated cross-sectionally with greater risk of ever, binge, and hazardous drinking (adjusted odds ratio = 4.47, 95% CI [3.33, 6.00], 4.84 [3.41, 6.86], and 5.46 [3.63, 8.23], respectively) and longitudinally with initiation of binge and hazardous drinking (1.80 [1.19, 2.73] and 2.02 [1.33, 3.06], respectively). **Conclusions:** Having an aspirational alcohol brand is both common and independently associated with subsequent underage alcohol use and misuse. Further studies examining how youth interact with and are affected by branded advertising are critical to guide development of effective education and policy interventions. (*J. Stud. Alcohol Drugs*, 79, 408–416, 2018)

ALCOHOL IS A LEADING CAUSE of morbidity and mortality among youth. Some 33% of high school students report recent drinking and 18% recent binge drinking, with 17% reporting drinking before age 13 years (Kann et al., 2016). Early alcohol use increases risk for problematic use and dependence later in life (Federal Trade Commission, 2014; Hingson et al., 2006), making primary prevention of underage alcohol use and its determinants crucial.

Alcohol brands are marketed across multiple platforms, including traditional and online media, many of which are easily accessible to underage youth. Multiple studies, including two systematic reviews, have demonstrated that exposure to alcohol marketing is associated not only with youth alcohol use but also with problematic drinking and drinking-related consequences (Anderson et al., 2009; Grenard et al., 2013; Koordeman et al., 2012; Lin et al., 2012; Morgenstern et al., 2011a, 2014; Smith & Foxcroft, 2009;

Tanski et al., 2015). Beyond simple exposure, which is difficult to accurately capture, there is growing evidence that youth response to and engagement with alcohol marketing campaigns (marketing receptivity) (McClure et al., 2013) is a risk factor for problematic alcohol transitions. Marketing receptivity (Henriksen et al., 2008; Lin et al., 2012; Morgenstern et al., 2011a, 2011b; Unger et al., 2003) has been assessed by measuring familiarity with ad imagery (Tanski et al., 2015), liking or having a favorite ad (Grenard et al., 2013; Morgenstern et al., 2014), owning alcohol-branded merchandise (Collins et al., 2007; Hurtz et al., 2007; Jones, 2016; Jones et al., 2016; McClure et al., 2006, 2009), and engaging with brands in music (Primack et al., 2014) or online (McClure et al., 2016).

The link between marketing and brand preference is supported by marketing theory in which “brand personality” is developed by companies to gain brand capital and ultimately foster brand allegiance within a target consumer population (Keller, 2008). Youth are susceptible to persuasive messaging and respond to and identify with alcohol portrayals in media and marketing, especially as branded marketing becomes less distinguishable from (and more integrated into) entertainment media and popular culture (Austin et al., 2006; Casswell, 2004; Casswell & Zhang, 1998; Unger et al., 2003). This concept is consistent with previous work describing a model of marketing receptivity (McClure et al., 2013; McGuire, 1985; Pierce et al., 1998) in which teens experience cycles of exposure and response to marketing, beginning with awareness and attention to advertising and progressing to active engagement in that marketing and the

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development of brand affiliations. The model predicts that passive exposures are linked to early transitions (e.g., trying alcohol), whereas greater engagement with marketing (e.g., affiliating with a brand personality) is associated with the development of marketing cognitions (drinker identity, brand preference, and ultimately brand allegiance). Subsequently, this process of cognitive maturation then coincides with problematic drinking transitions, such as binge drinking or the advent of drinking-related consequences. Thus, marketing receptivity captures not only exposure to but a cognitive response to marketing, such as brand allegiance. It also does not discriminate by marketing platforms, capturing a broad array of alcohol marketing campaigns as well as youth openness to engagement with that marketing.

There is growing evidence that branded marketing is influential in determining youth brand choice and is linked to drinking behaviors, despite self-regulation of the alcohol industry to specifically restrict marketing approaches to consumers of legal drinking age. Several cross-sectional studies have linked brand preference, a distal cognition that marketing clearly aims to elicit, both to alcohol marketing and to drinking outcomes. Lin et al. (2012) demonstrated that “brand allegiance” (having a favorite brand of alcohol) in 13- to 14-year-olds was associated with drinking intentions, and with alcohol use and overuse. Tanski et al. (2011) found that two thirds of underage drinkers identified a specific brand they would choose to drink if they could choose any brand, that reported brands corresponded with marketing expenditure for those brands, and that having a preferred brand to drink was associated with higher likelihood of binge drinking. Although binge drinking rates varied by chosen brand reported (28%–71%), binge drinking by drinkers who did not report a preferred brand to drink was less prevalent (11%). One additional U.S. national cross-sectional study assessed brand-specific alcohol consumption and demonstrated that underage youth reported recent consumption primarily of highly marketed brands (Roberts et al., 2016; Siegel et al., 2013), brand-specific alcohol consumption was linked to branded advertising exposure (Ross et al., 2014a, 2014b, 2015; Siegel et al., 2016a, 2016b), the brands most often consumed by youth had characteristics distinct from those consumed by adults (Fortunato et al., 2014; Giga et al., 2011; Siegel et al., 2015) and tended to be premium brands (Albers et al., 2014), and similar brands were reported regardless of whether the alcohol was actively or passively obtained (Roberts et al., 2014; Siegel et al., 2015). However, few studies have examined prospective links between brand affiliation and drinking outcomes, an important step in understanding this pathway and establishing a causal link between branded marketing, the development of marketing attitudes and cognitions, and drinking behavior (Casswell & Zhang, 1998).

In the current study, we examine characteristics of youth who affiliate with alcohol brands and both cross-sectional

and longitudinal associations between having any aspirational brand (the brand that a youth would drink if they could choose any brand) and initiation of drinking, binge drinking, and problem drinking. Given that the goal of marketing is to establish brand allegiance, a better understanding of the impact of branded marketing on youth is important to guide effective education and policy efforts aimed at limiting marketing attractive to underage youth and helping youth to navigate these marketing messages.

Method

Recruitment and survey methods

Using random-digit-dial methods, 3,342 youth ages 15–23 were recruited in 2011 for a national survey of youth exposure to media and marketing. A baseline computer-assisted telephone interview (CATI) was completed and youth were then directed to an online image-based survey. A follow-up online survey was completed 2 years later (2013). For the CATI portion, participants younger than 18 years could respond to sensitive questions by telephone keypad. Verbal consent (age ≥ 18 years), or verbal parental permission and adolescent assent (age < 18 years) were obtained. The Committees for the Protection of Human Subjects at Dartmouth College and at Westat (Rockville, MD) approved all study materials. Detailed survey methods have been published previously (Morgenstern et al., 2017; Tanski et al., 2015).

Compared with the U.S. Current Population Survey (2011), the unweighted baseline survey sample had fewer young adults and minorities. It also had more participants from the Midwest, and fewer from the southern United States. At baseline, the American Association for Public Opinion Research response rate for the CATI interview was 56.3% for the landline and 43.8% for the cell phone sample. Of the 2,541 youth who completed the baseline survey, there were 1,596 who also completed the follow-up survey, for a final response rate of 61.7%. Compared with baseline, the follow-up sample had better retention for younger participants and those with higher household income. Reported analyses were limited to underage youth completing baseline CATI and online surveys ($N = 2,012$).

Measures

Outcomes. Three outcome measures, assessed at follow-up, were ever drinking (“Have you ever had a whole drink of alcohol more than a sip or taste?” *no, yes*), binge drinking (“How often do you have six or more drinks on one occasion?” *never, less than monthly, monthly, weekly, daily or almost daily*; collapsed into *never, ever*), and hazardous drinking. Hazardous drinking was defined as a subscore of 4 or greater on the Alcohol Use Disorders Identification Test–Consumption (AUDIT-C) which includes binge drinking

frequency (as above, full responses), drinking frequency ("In the past year, how often did you have a drink of alcohol?" *once a month or less, 2–4 times a month, 2–3 times a week, or 4 or more times a week*), and quantity of alcohol consumed ("How many drinks containing alcohol do you have on a typical day when you are drinking?" *1 or 2; 3 or 4; 5 or 6; 7, 8, or 9; or 10 or more*). We used the more conservative measure of binge drinking from the as-published AUDIT as opposed to the cutoff of five drinks more commonly used by the National Institute on Alcohol Abuse and Alcoholism (Babor, 2001; Dawson et al., 2005; Wechsler & Nelson, 2006).

Predictor variable of interest. Aspirational brand was assessed at baseline and follow-up by asking, "If you could drink any brand you want, what is the name of the brand of alcohol you would choose?" Brand choices were prompted using a list of top alcohol brands (Tanski et al., 2015) and an "other" option. For Smirnoff, Bacardi, Captain Morgan, Jack Daniels, Skyy, or Stolichnaya, a follow-up question was asked to assess brand type; "Is that . . . 1) Smirnoff Vodka, 2) a ready-to-drink mixed drink like Smirnoff Ice, Smirnoff Twisted or Smirnoff Fire or Source?"

Brand choices were then categorized by brand type: distilled spirit, beer, wine/champagne/cooler/cider, or malt beverage/alcopop. For report of top brands, subbrands (Bud Light, Bacardi Breezer) were grouped under parent brand (Budweiser or Bacardi). A dichotomous (*yes, no*) variable was also created to indicate if any aspirational brand was selected. Sustained brand choice was assessed by comparing brand choices between survey waves to determine whether brand choice was sustained over time.

Covariates. We controlled for baseline covariates that might be associated with aspirational brand selection and with youth drinking, including demographics (age, gender and race), sensation seeking (Sargent et al., 2010) (derived scale including items such as "I like to do frightening things" or "I like to explore strange places" [six items, $\alpha = .72$]), peer drinking ("How many of your friends drink alcohol? Would you say . . . *none, a few, more than a few, most?*"), and parent drinking ("Which of the following statements best describes how often your mother /father drinks alcohol? Would you say . . . *never, occasionally, weekly, daily?*" highest parental report was collapsed into *never-occasionally, weekly-daily* because of small cell frequency in the highest categories) (Martino et al., 2006; Sargent et al., 2006).

Statistical analysis

Bivariate associations between all modeled variables and youth report of having any aspirational brand were examined using chi-square tests for categorical variables and evaluation of mean score differences using *t* tests for scaled variables. We used multivariate logistic regression with maximum likelihood estimation to test associations between having any

aspirational brand and drinking outcomes, while adjusting for relevant covariates in both cross-sectional ($N = 2,012$) and longitudinal models. Baseline sampling weights were included in regression models to address survey selection bias and to more accurately reflect demographic characteristics of the population in the United States. Longitudinal analyses were restricted to baseline nondrinkers (ever drinking initiation analysis, $n = 898$), baseline non-binge drinkers (binge drinking initiation analysis, $n = 1,481$), and baseline non-hazardous drinkers (hazardous drinking initiation analysis, $n = 1,636$) to model change in these outcomes. Multiple imputation was used to impute missing data for participants lost to follow-up, resulting in 20 imputed data sets. All models were fit using M-plus software. (Muthén & Muthén, 1998–2012).

Results

Sample description (Table 1, baseline sample)

Sample demographics and covariate prevalence have been reported previously for the full sample (15- to 23-year-olds) (Tanski et al., 2015). Geographically, the sample was drawn from all 50 U.S. states (Figure 1). Table 1 describes characteristics of the baseline sample (ages 15–20 completing both surveys, $N = 2,012$) included in these analyses. At baseline (unweighted), 63% of the sample was 15–17 years of age and 37% was 18–20 years. The sample was almost equally divided by gender (51% female); 69% of respondents were White, 8% Black, 13% Hispanic, and 10% mixed/other race. Some 83% reported peer drinking and 30% that at least one of their parents drank weekly to daily.

At baseline (unweighted), ever, binge, and hazardous drinking prevalence was 55%, 26%, and 19%, respectively. Stratified by age, ever-drinking prevalence was 47% ($n = 590$) for ages 15–17 years and 70% ($n = 524$) for 18–20 years; binge drinking prevalence was 18% ($n = 224$) for ages 15–17 years and 41% ($n = 307$) for 18–20 years; and hazardous drinking prevalence was 12% ($n = 153$) for ages 15–17 years and 30% ($n = 223$) for 18–20 years.

Reported brands (Table 2)

At baseline (unweighted), 46% ($n = 922$) of underage youth reported having an aspirational brand; of those, 20% were never drinkers. Table 2 lists the top 10 reported aspirational brands: Budweiser, Smirnoff, Corona, Jack Daniels, Bacardi, Mike's Hard Lemonade, Coors, Captain Morgan, Miller, and Four Loko. Six of the top 10 included malt beverage/"alcopop" varieties.

There was variability in youth report of aspirational brand over time. At follow-up ($n = 1,276$), 62% ($n = 791$) of youth reported an aspirational brand; 31% (338) of youth with no brand at baseline reported an aspirational brand at follow-up.

FIGURE 1. Geographic distribution of study sample

Some 36% ($n = 453$) reported a brand both at baseline and at follow-up, but only 8% ($n = 96$) reported the same brand in both surveys. When aspirational brands were classified by alcohol type, reported brands varied by gender, with 34% (33% of males/35% of females) reporting a distilled spirit brand, 44% (56% vs. 30%) a beer brand, 19% (9% vs. 30%) a malt beverage/alcopop brand, and 3.4% (2% vs. 5%) a wine/wine cooler brand.

Regression analyses

Table 1 (columns 2 and 3) shows bivariate associations (weighted percentages) between sample covariates and having an aspirational brand. There was a strong relation with age, with about one third identifying an aspirational brand at age 15, increasing to two thirds by age 20. Male gender, higher sensation seeking, and having friends or parents who drank also were associated with having an aspirational brand ($p < .001$). Table 1 also shows strong relations between having an aspirational brand and all cross-sectional drinking

behaviors. For example, the percentage who engaged in binge drinking at baseline was 81% for youth who reported an aspirational brand and 19% for those who denied having an aspirational brand. Figure 2 shows the associations between having an aspirational brand at baseline and onset of any alcohol use, binge drinking, and hazardous drinking by the following survey. The differences, although statistically significant and in the direction hypothesized, were less striking than those in the cross-sectional associations.

Table 3 shows independent risk factors for onset of drinking, binge drinking, and hazardous drinking from cross-sectional and longitudinal multivariate models. In multivariate models, including other risk factors associated with drinking (age, gender, race, sensation seeking, and peer/parent drinking), having an aspirational brand was independently associated with significantly greater odds of ever, binge, and hazardous drinking cross-sectionally (OR = 4.47, 95% CI [3.33, 6.00], 4.84 [3.41, 6.86], and 5.46 [3.63, 8.23], respectively) and with initiation of binge and hazardous drinking (but not with drinking initiation) longitudinally

TABLE 1. Sample description and bivariate association with aspirational brand

Variable	Baseline sample <i>n</i> (%)	Aspirational brand <i>n</i> (% within row)	No aspirational brand <i>n</i> (% within row)	<i>p</i>
Age, in years				<.0001
15	410 (20)	137 (33)	273 (67)	
16	431 (21)	170 (39)	261 (61)	
17	420 (21)	198 (47)	222 (53)	
18	323 (16)	155 (48)	168 (52)	
19	223 (11)	126 (57)	97 (43)	
20	205 (10)	136 (66)	69 (34)	
Gender				<.0001
Male	992 (49)	516 (52)	476 (48)	
Female	1,020 (51)	406 (40)	614 (60)	
Race/ethnicity				.062
White	1,396 (69)	656 (47)	740 (53)	
Black	154 (8)	55 (36)	99 (64)	
Hispanic	253 (13)	118 (47)	135 (53)	
Other	209 (10)	93 (44)	116 (56)	
Sensation seeking ^a	2.32 (0.53)	2.47 (0.51)	2.20 (0.51)	<.0001
Friend drinking				<.0001
None	348 (17)	71 (20)	277 (80)	
A few	799 (40)	310 (39)	489 (61)	
More than a few	367 (18)	188 (51)	179 (49)	
Most	489 (24)	352 (72)	137 (28)	
Parent drinking				<.0001
Never or occasional	1,413 (70)	577 (41)	836 (59)	
Weekly or daily	599 (30)	254 (42)	345 (58)	
Ever drinking				<.0001
No	898 (45)	187 (21)	711 (79)	
Yes	1,114 (55)	735 (66)	379 (34)	
Binge drinking				<.0001
No	1,481 (74)	490 (33)	991 (67)	
Yes	531 (26)	432 (81)	99 (19)	
Hazardous drinking				<.0001
No	1,636 (81)	601 (37)	1,035 (63)	
Yes	376 (19)	321 (85)	55 (15)	

Notes: Analysis is limited to respondents with age <21 years and complete data for phone and web surveys (*n* = 2,012). **Bold** indicates statistically significant odds ratios. ^aValues for sensation seeking are mean scores (standard deviations).

(1.80 [1.19, 2.73] and 2.02 [1.33, 3.06], respectively). Other variables retaining an independent significant association with drinking outcomes in one or more models included older age, male gender, sensation seeking, and having peers/parents who drink.

We conducted a sensitivity analysis to determine if controlling for the number of drinks containing alcohol consumed on a typical day when drinking, in addition to binge drinking status at baseline, would alter the effect of having an aspirational brand on binge drinking onset. In the longitudinal binge drinking model restricted to baseline never bingers, adding drinking quantity reduced the effect of having an aspirational brand to adjusted odds ratio = 1.485, 95% CI [0.952, 2.309]. Given the impact of restricted sample size and the strength of correlation between drinking status and aspirational brand, we also ran the model using the full sample. In the 2,012 participants, when baseline binge drinking status and quantity of drinking was controlled for, the adjusted odds ratio of having an aspirational brand on binge drinking at follow up was 1.508, 95% CI [1.031, 2.206].

Discussion

In this study, underage youth who could name an aspirational brand were more likely to report drinking at baseline and transitions to binge and hazardous drinking, but not transitions from nondrinker to drinker status, as compared with youth with no identified aspirational brand. Although the potential for unmeasured confounders remains, the associations between having an aspirational brand and drinking outcomes were independent of a number of measured potential social influences besides marketing (e.g., peer and parent drinking) that may influence aspirational brand choice and drinking behavior.

The aspirational brands reported by youth in this study tended to be heavily marketed brands similar to those reported previously as preferred (Tanski et al., 2011) and that youth reported consuming most often (Roberts et al., 2016). It is also notable that even in youth who were nondrinkers at baseline, 21% already had identified an aspirational brand. The findings suggest that youth not only drink commonly marketed brands, but that they may be receptive to and en-

FIGURE 2. Incidence of three youth drinking outcomes at follow-up by baseline endorsement of aspirational brand. ^aSample restricted to baseline never drinkers; ^bsample restricted to baseline never binge drinkers; ^csample restricted to baseline non-hazardous drinkers.

gage with branded marketing as well, adding to the growing body of literature supporting a link between alcohol marketing and underage drinking behaviors.

Although a third of youth reported having an aspirational brand at both survey time points, only a fifth of those reported the same brand choice between waves, suggesting that brand allegiance may be transient among underage youth. As with many aspects of adolescent development, brand affiliation may change based on temporal influences, including peer influence, direct experimentation with different brands, and media and marketing trends (Casswell, 2004) as more sustained preferences are established. This points to the potential role of alcohol marketing (or consumer) messaging in influencing brand allegiance among new onset underage drinkers and as youth transition into legal drinking status and explore an identity that includes being a drinker. It also

highlights the need for further studies to better understand the path between exposure to branded marketing, development of brand-affiliative cognitions, brand-specific consumption, and problematic drinking. Future work should seek to parse out what it means to drink a specific brand, to aspire to drink a specific brand, why those brands are chosen by youth, and how that choice affects future drinking choices and risk for problem drinking. Additional work including measures of branded alcohol consumption and focusing on what features of alcohol marketing may draw underage consumers to a particular brand would also contribute understanding to the mechanisms that link marketing exposure to drinking behaviors.

Recent work by Morgenstern et al. (2015) begins to examine this question. By content coding television advertisements from top 20 U.S. beer and distilled spirits brands, the authors were able to identify certain themes (Partying, Qual-

TABLE 2. Top reported aspirational brands

Rank	Brand name	n (%)	Top aspirational brands		Top sustained brand choices	
			Brand type		Brand name	n (%)
1	Budweiser	173 (19)	Beer		Budweiser	15 (16)
2	Smirnoff	112 (12)	(38% distilled spirit/63% malt beverage)		Smirnoff	15 (16)
3	Corona	49 (5)	Beer		Captain Morgan	6 (6)
4	Jack Daniels	41 (5)	(76% distilled spirit/24% malt beverage)		Coors	6 (6)
5	Bacardi	39 (4)	(51% distilled spirit/49% malt beverage)		Corona	6 (6)
6	Mike's Hard Lemonade	34 (4)	Malt beverage		Jack Daniels	6 (6)
7	Coors	31 (4)	Beer		Bacardi	6 (6)
8	Captain Morgan	29 (3)	(86% distilled spirit/14% malt beverage)		Mike's Hard Lemonade	5 (5)
9	Miller	27 (3)	Beer		Jagermeister	4 (4)
10	Four Loko	24 (3)	Malt beverage		Four Loko	3 (3)

Notes: Analysis is limited to respondents with age < 21 years and complete data for phone and web surveys (N = 2,012).

TABLE 3. Associations between having an aspirational brand and drinking outcomes in underage youth

Variable	Adjusted cross-sectional analysis, OR [95% CI]			Adjusted longitudinal analysis (weighted and MI), OR [95% CI]		
	Ever drink (<i>N</i> = 2,012)	Ever binge drink (<i>N</i> = 2,012)	Hazardous drinking (<i>N</i> = 2,012)	Drinking initiation (<i>n</i> = 898) <i>M</i> _{age} = 16.84	Binge drinking initiation (<i>n</i> = 1,481) <i>M</i> _{age} = 17.15	Hazardous drinking initiation (<i>n</i> = 1,636) <i>M</i> _{age} = 17.26
Aspirational brand	4.47 [3.33, 6.00]	4.84 [3.41, 6.86]	5.46 [3.63, 8.23]	1.31 [0.78, 2.21]	1.80 [1.19, 2.73]	2.02 [1.33, 3.06]
Age	1.34 [1.22, 1.48]	1.28 [1.16, 1.42]	1.17 [1.05, 1.31]	1.28 [1.08, 1.51]	1.11 [0.96, 1.27]	1.12 [0.99, 1.27]
Gender	0.96 [0.71, 1.30]	0.57 [0.41, 0.79]	0.39 [0.27, 0.57]	1.23 [0.77, 1.97]	1.11 [0.75, 1.62]	0.66 [0.43, 1.02]
Race						
White	ref.	ref.	ref.	ref.	ref.	ref.
Black	0.96 [0.61, 1.49]	0.74 [0.44, 1.25]	0.61 [0.32, 1.14]	0.99 [0.45, 2.19]	0.50 [0.24, 1.06]	0.83 [0.39, 1.77]
Hispanic	1.81 [1.17, 2.81]	0.82 [0.52, 1.29]	0.76 [0.47, 1.24]	0.51 [0.24, 1.06]	0.84 [0.49, 1.46]	0.45 [0.24, 0.86]
Mixed/other	1.06 [0.70, 1.62]	0.82 [0.46, 1.48]	0.90 [0.44, 1.87]	0.87 [0.48, 1.58]	0.81 [0.41, 1.61]	1.01 [0.56, 1.81]
Sensation seeking	2.51 [1.85, 3.42]	2.55 [1.84, 3.53]	2.53 [1.74, 3.76]	1.92 [1.19, 3.08]	1.94 [1.31, 2.86]	1.44 [0.92, 2.25]
Friend drinking	1.99 [1.68, 2.35]	2.48 [2.07, 2.98]	2.76 [2.24, 3.41]	1.62 [1.20, 2.20]	1.68 [1.39, 2.03]	1.78 [1.43, 2.22]
Parent drinking	1.66 [1.19, 2.32]	1.19 [0.83, 1.69]	1.37 [0.95, 1.97]	1.66 [1.00, 2.77]	1.28 [0.82, 2.01]	1.52 [1.01, 2.29]

Notes: Analysis is limited to respondents with age < 21 years and complete data for phone and web surveys (*N* = 2,012). **Bold** indicates statistically significant odds ratios [ORs]. Ref. = reference; CI = confidence interval; MI = multiply imputed; ref. = reference.

ity, Sports, Manly, and Relax) and the brands most likely to incorporate these into their image. A partying theme with advertising messages communicating partying, love, and sex was identified through latent class analysis and was the dominant theme for 42% of the advertisements. Additional work demonstrated that greater cued recall of advertisements containing a partying theme was associated with higher rates of drinking and binge drinking in adolescents and young adults (Morgenstern et al., 2017). We posit that advertising with themes that resonate with youth may play a role in these drinking transitions.

This research, along with the present finding linking aspirational brand with transitions to hazardous drinking, supports our previously described model of alcohol marketing receptivity (McClure et al., 2013). This model predicts that passive marketing exposures (e.g., seeing television advertisements) would be linked to early alcohol transitions, whereas greater engagement with marketing (e.g., affiliating with a specific brand) is linked to problematic drinking transitions, such as binge drinking in youth who have developed drinking-related cognitions. It also supports the idea that the association is bidirectional: that having an aspirational brand is both a risk for future drinking but also a marker for a youth who has contemplated or begun to drink and has become more receptive to and open to engaging with branded marketing. Future studies using path models are needed to better define directional pathways (McClure et al., 2009) and further elicit the aspect of a brand's image that may be particularly attractive to underage youth.

Last, as noted, aspirational brand preference is likely a marker for higher engagement with alcohol marketing messages more broadly and across platforms. Because this study was not limited to one measure of exposure (e.g., television or Internet), it potentially provides a unique ability to capture the compounded influence of multimedia marketing, as branded

advertising become interwoven within popular culture. Controlling for peer and parental influences and drinking history allows us to test the specificity of the marketing effect.

Limitations

A number of covariates were included in our analysis. However, it is possible that an unmeasured confounder could further explain the associations we found between having an aspirational brand and drinking outcomes. Although we assessed for peer and parent drinking, we used single item assessments as proxy measures and did not assess peer/parental brand choices, or other social or financial influences beyond marketing that might determine brand choice (e.g., availability of certain brands, or cost). We also did not assess parenting style, which could be hypothesized to affect youth interactions with alcohol and alcohol marketing. An assessment of what factors might lead to specific brand choice (e.g., exposure to brands in media and branded marketing on television, movies, the Internet, and in the community) is outside the scope of this work. These, and an assessment of other personality factors or cognitions that might predispose a youth to drinking, will be important in future work to better understand how youth brand affiliation influences drinking. Measures are self-reported and may be subject to bias. Last, although we demonstrated a link between having a preferred brand and underage drinking, we did not include an assessment of brand-specific alcohol consumption. It will be important to include these items in future work.

Conclusion

Having an aspirational alcohol brand is both common in underage youth and independently associated with subsequent underage alcohol use and misuse. Aspirational brands

include many highly advertised alcohol brands. Brand preference is likely a marker for a high level of marketing receptivity; that this cognition is linked to future problem drinking is a matter of public health concern and demonstrates the importance of better understanding the association between exposure to and engagement with alcohol brand advertising and imagery, brand choice, and drinking behavior in order to guide policy and prevention efforts.

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