

Moderating Effects of Positive Parenting on the Perceived Peer Alcohol Use and Adolescent Alcohol Use Relationship: Racial, Ethnic, and Gender Differences

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Abstract

Positive parenting behaviors such as parental monitoring and support can protect adolescents from alcohol use, either directly or through buffering risk factors such as perceived peer alcohol use. However, it is unclear whether such moderating effects vary as a function of race, ethnicity, and gender. This study addressed the knowledge gap by exploring racial, ethnic, and gender differences in the potential moderating effects of perceived positive parenting on the association between perceived peer alcohol use and adolescent alcohol use. Using data from the U.S. Health Behavior in School-Aged Children study collected in 2009–2010, this study focused on 6744 adolescents from Grades 7 to 10 and five racial and ethnic groups (White, Black, Asian American, Latinx, and multiracial). Multiple regression analyses with three-way interaction effects were conducted. All three perceived positive parenting measures (i.e., maternal monitoring, paternal monitoring, and parental support) moderated the influence of perceived peer alcohol use on adolescent alcohol use among White girls and boys, but the moderating effects were inconsistent for boys and girls of color. Racial, ethnic and gender differences exist among the moderating effects of perceived positive parenting. Parenting programs designed for White adolescents need to be tailored for adolescent boys and girls of color.

Keywords: Parental monitoring; Parental support; Alcohol use; Health disparity; Peer influence

Alcohol use among adolescents is prevalent and associated with many serious consequences (Jones et al., 2020; Miech et al., 2020). About 29% of high school students (32% of girls, 26% of boys) had at least one drink in the past 30 days, and 14% of high school students (15% of girls, 13% of boys) engaged in heavy episodic drinking in the past 30 days (Jones et al., 2020). Adolescent drinking is associated with many health risk behaviors (e.g., smoking cigarettes, using illicit drugs, risky sexual behaviors, drunk driving, attempting suicide; Miller et al., 2007), adverse health consequences (e.g., future alcohol dependence or abuse, alcohol-related motor vehicle crashes, unintentional injuries, sleep disorders; DeWit et al., 2000; Hingson et

al., 2009; Marshall, 2014), and changes in the brain (e.g., deficits in verbal memory and executive functions, poor inhibitory control; Carbia et al., 2018).

Substantial racial and ethnic disparities exist in the prevalence and consequences of alcohol use (Chartier & Caetano, 2010; Witbrodt et al., 2014). Compared with White adolescents, a higher percentage of adolescents from other racial and ethnic groups (except for Asian Americans) have their first drink before 13 years old (Centers for Disease Control & Prevention, 2020). Latinx early adolescents (8th graders) have a higher prevalence of drinking and drunkenness than White and Black adolescents (Miech et al., 2020). Experiencing unavoidable discrimination and acculturative stress, adolescents of color tend to suffer from more severe consequences of drinking in their lifetime (e.g., less likely to mature out of heavy drinking patterns and alcohol-related problems as they transition to adulthood, less access to alcohol treatment; Chartier & Caetano, 2010; Mulia et al., 2017; Witbrodt et al., 2014). Despite the substantial racial and ethnic disparities, alcohol use prevention efforts designed explicitly for adolescents of color are limited. It is critical to examine whether the influence of risk (e.g., peer alcohol use) and protective factors (e.g., positive parenting) of adolescent drinking vary as a function of race and ethnicity to adapt effective alcohol use prevention programs for adolescents of color.

Perceived Peer Alcohol Use and Adolescent Alcohol Use

Perceived peer alcohol use is one of the most relevant predictors of adolescent alcohol use (Leung et al., 2014). Perceived peer alcohol use (or descriptive norms of alcohol use among peers) refers to adolescents' estimation of how many or what percentage of others like them (e.g., friends, classmates) are or are not using alcohol (Jaccard, 2016). If adolescents believe that most of their friends are using alcohol, they may perceive alcohol use as beneficial and accepted by their peers and therefore, they may be more likely to have positive intentions toward alcohol use (Bo et al., 2020). Adolescents tend to overestimate their peers' alcohol use, which is associated with both onset and escalation of adolescent drinking, heavy episodic drinking, drunkenness, and alcohol-related problems (Amialchuk & Sapci, 2021; D'Amico & McCarthy, 2006; Song et al., 2012). Therefore, adolescent alcohol use prevention programs often include components that correct adolescents' misperceptions about peer alcohol use rates or strengthening factors (e.g., positive parenting) that can buffer the influence of perceived peer alcohol use (Wynn et al., 2000).

Protective Effect of Positive Parenting on Peer Influences

Positive parenting (e.g., parental monitoring, support) can directly or indirectly influence adolescent drinking through buffering multiple risk factors, including negative peer influences (Barnes et al., 2006; Clark et al., 2012; Costa et al., 1999; Jaccard et al., 2005; Marschall-Lévesque et al., 2014; Wood et al., 2004). Although direct evidence on the mechanisms of these moderating effects is lacking, previous research found various pathways of positive parenting to adolescent drinking (Nash et al., 2005). Higher levels of perceived parental monitoring were associated with lower alcohol use frequency through higher alcohol resistance self-efficacy (Watkins et al., 2006) and lower perceived peer alcohol use (Kim & Neff, 2010). Higher parental support levels were associated with a better parent-adolescent relationship (Mogro-Wilson, 2008), better behavioral coping and academic competence, and less negative coping (Wills & Cleary, 1996), which in turn, were associated with less drinking among adolescents.

Previous research suggested that positive parenting did not always buffer the influences of perceived peer drinking, and the effects may differ based on the gender of the parent and the adolescent (Marschall-Lévesque et al., 2014; Marshal & Chassin, 2000; Trucco et al., 2011). One study found that both mothers and fathers' social support and consistency of discipline buffered the influence of peer group affiliation on girls' drinking but exacerbated boys' drinking (Marshal & Chassin, 2000). Another study supported the moderating effects of the mother-child relationship but not the paternal relationship on the association between perceived peer substance use and adolescent substance use (Farrell & White, 1998). Therefore, more research is needed to explore gender differences in the interaction between positive parenting and perceived peer alcohol use when predicting adolescent alcohol use.

Moreover, previous studies did not address racial and ethnic differences in parenting's moderating effect on the relationship between perceived peer alcohol use and adolescent alcohol use. These moderating effects may differ because parent-adolescent dynamics vary by culture and race and ethnicity. For instance, some studies suggested that Black adolescents are more parent-oriented and less peer-oriented compared to White adolescents (Giordano et al., 1993; Wallace & Muroff, 2002). Latinx adolescents with higher levels of parent-youth acculturation discrepancy are more likely to disobey their parents and be susceptible to peer influences that lead to alcohol use (Nair et al., 2018; Unger et al., 2009). Asian American adolescents who hold cultural values of family obligation might be more likely to respect and obey their parents, which could protect against alcohol use (Shih et al., 2012). Gender differences in the moderating effects may also be more apparent among Latino and Asian cultures that value traditional gender norms and roles (Lac et al., 2011). For example, families with cultures that emphasize traditional gender roles (e.g., feminine attributes are associated with less drinking) allow boys to have more freedom than girls to engage in social activities that expose them to peer alcohol use (Schulte et al., 2009). In these families, increased parental monitoring will lessen boys' opportunities to drink with peers and perceptions that it is acceptable for them to drink. In contrast, girls may already have limited opportunities to drink with peers and perceive that drinking is unacceptable for them. However, boys may perceive parental control as a threat to their autonomy and become more susceptible to peer influence as parental support and discipline increase (Marshal & Chassin, 2000). In sum, the direction of racial, ethnic, and gender differences of the interaction effects between parenting and perceived peer alcohol use remains unclear.

Present Study

The current study aimed to address these knowledge gaps. Specifically, this study explored whether the moderating effects of perceived positive parenting on the association between perceived peer alcohol use and adolescent alcohol use vary as a function of race and ethnicity or gender. We focused on adolescents' perceived parenting behavior because parents' self-reported behavior is less predictive than adolescents' perceptions of parenting relative to adolescent risk behaviors, including alcohol use (Cottrell et al., 2003; Latendresse et al., 2009). We aimed to examine the unique moderating effect of maternal monitoring, paternal monitoring, and parental support. Regarding perceived maternal monitoring, adolescents who believe that their mothers have a clear knowledge of their whereabouts after school or during their free time might be more cautious about spending their time with friends and engage less in drinking than those who perceived minimum or low levels of maternal monitoring. Paternal monitoring may have a similar mechanism with maternal monitoring but may have a smaller buffering effect than maternal monitoring, given that mothers generally spend more time with adolescents and are more influential in adolescents' risk behaviors than fathers (Craig, 2006;

Jaccard et al., 1998). Regarding parental support, adolescents who perceive their parents as supportive and loving might be more likely to rely on their parents for stress coping and therefore, are less influenced by perceived peer alcohol use. Because there are competing theories for how the interaction effects between perceived positive parenting and peer alcohol use may differ based on race, ethnicity, and gender, we do not have specific hypotheses about the direction of the three-way interaction effects, and the analyses were considered exploratory. The study aimed to answer the following research questions.

Research Question 1:

How do the moderating effects of perceived positive parenting (maternal monitoring, paternal monitoring, and parental support) on the association between perceived peer alcohol use and adolescent alcohol use vary as a function of the race and ethnicity of the adolescent?

Research Question 2:

How do the moderating effects of perceived positive parenting (maternal monitoring, paternal monitoring, and parental support) on the association between perceived peer alcohol use and adolescent alcohol use vary as a function of the gender of the adolescent in racial and ethnic groups?

Method

Respondents

This study used secondary data from the U.S. Health Behavior in School-Aged Children (HBSC-US) survey collected in 2009 and 2010 (Iannotti, 2013). The HBSC study was initiated in Europe in 1982 and first involved the United States in 1996 (Iannotti, 2013). HBSC now includes repeated cross-sectional data from 50 participating countries and regions. The sample for the present study consisted of 6744 adolescents from Grades 7 to 10 in five racial and ethnic groups (White, Black, Asian American, Latinx, and multiracial). Two racial and ethnic groups (i.e., American Indian or Alaska Native and Native Hawaiian or other Pacific Islanders) were not included due to insufficient sample sizes. The research was classified as exempt by the institutional review boards of the authors' institutions because these are public, deidentified datasets.

Procedure

The HBSC-US study used a multistage probability sampling strategy. In the first stage, 94 districts were selected from 1302 districts. In the second stage, 475 schools were selected, and 314 schools participated in the study. In the third stage, classes (ranging from one to four) were randomly selected from the schools. The student response rate was about 90%. The final sample included 12,642 adolescents from Grades 5 to 10. Adolescents completed 45-min anonymous surveys in classroom settings.

Measures

The study used two items for measuring alcohol use: the frequency of alcohol use in the past 30 days and the frequency of drunkenness in the past 30 days. The questions on past-30-day

drinking frequency are the standard measures of experimental alcohol use employed by many national and international adolescent health surveys, including Monitoring the Future (Miech et al., 2020) and the Youth Risk Behavior Survey (Centers for Disease Control & Prevention, 2020) in the United States. The validity and reliability of self-reported alcohol use measures have been supported by empirical evidence (Brener et al., 2003; Del Boca & Darkes, 2003). Specifically, students were asked, “On how many occasions (if any) have you done the following things in the past 30 days? (1) drunk alcohol, (2) been drunk?” Available responses were “never,” “once or twice,” “3–5 times,” “6–9 times,” “10–19 times,” “20–29 times,” and “40 times or more.” All the values were recoded to represent the midpoints of each category (e.g., 0 = “never,” 1.5 = “once or twice,” 4 = “3–5 times,” 40 = “40 times or more”).

Perceptions of peer alcohol use (i.e., number of friends who drink alcohol and get drunk at least once a week) were measured by two single-item questions. Students were asked, “How many of your friends would you estimate (1) drink alcohol, (2) get drunk at least once a week?” Available responses were “none,” “a few,” “some,” “most,” and “all.” Each item was coded as 0 (*none*) to 4 (*all*) and used as a continuous variable. Self-report single-item measures of perceived peer alcohol use have been frequently used in previous research to assess descriptive drinking norms in adolescents from various racial and ethnic groups (Hong et al., 2013; Jones et al., 2008; Kam et al., 2009).

Perceived maternal and paternal monitoring were each measured by the same four items from the parental monitoring scale used in previous studies (Brown et al., 1993). One item from the scale (whether the parent knows the adolescent’s friends) was excluded because it had lower factor loading on a single parental monitoring factor compared to the other four items. Perceived maternal (or paternal) monitoring was measured by asking: “How much does your mother or female guardian (or father or male guardian) really know about: (a) where you are after school, (b) where you go at night, (c) what you do with your free time, and (d) how you spend money?” Available responses were “doesn’t know anything,” “knows a little,” and “knows a lot.” Each item was coded as 0 (*doesn’t know anything*) to 2 (*knows a lot*) and used as a continuous variable. Perceived parental support was measured by four items adapted from the subscale on parental care or rejection from the Parental Bonding Inventory-Brief Current form (Klimidis et al., 1992). The items are “My parent/guardian: (a) helps me as much as I need, (b) is loving, (c) understands my problems and worries, and (d) makes me feel better when I am upset.” Available responses were “almost never,” “sometimes,” and “almost always.” Each item was coded as 0 (*almost never*) to 2 (*almost always*) and used as a continuous variable. The mean score of the items (range = 0–2) was calculated for each parenting construct as a composite index. All three perceived parenting measures demonstrated adequate composite reliability (maternal monitoring: .79, paternal monitoring: .88, parental support: .82) in the present study.

Demographic variables included gender (boy, girl), grade (seventh, eighth, ninth, and 10th grade), race and ethnicity (White, Black, Asian American, Latinx, and multiracial), family structure (living with both parents, single parent, or other), and family affluence (composite score ranging from 0 to 9). Family affluence is a pre-existing computed variable in the HBSC-US 2009–2010 dataset based on five items (i.e., perceived family well off, number of computers the family owns, whether respondents have their own bedroom, whether the family owns a vehicle, and number of family vacations during the past 12 months). The Family Affluence Scale has been included in the HBSC survey for more than 20 years and widely validated among adolescents (Boyce et al., 2006; Currie et al., 2008).

Analytic Methods

We calculated the means and standard deviations for continuous variables and the percentages for each level of the categorical variables for descriptive statistics. We used a one-way analysis of variance for continuous variables and chi-square tests for categorical variables to determine whether the mean (or percentage) of a key variable differed based on racial and ethnic groups. We also conducted pairwise comparisons of the means for continuous variables across racial and ethnic groups.

This study used multiple linear regression analysis to explore the three-way interaction effects between perceived peer alcohol use (focal independent variable), perceived parenting (first-order moderator), and race and ethnicity or gender (second-order moderator; Jaccard & Turrisi, 2003). Stata 16 was used for data analysis (StataCorp, 2019). For Research Question 1, we tested the three-way interactions among perceived parenting (maternal monitoring, paternal monitoring, and parental support), perceived peer alcohol use (peer drinking and peer drunkenness), and race and ethnicity. Race and ethnicity was dummy coded so that the differences in the interaction term between parenting and peer alcohol use for pairs of racial and ethnic groups could be compared directly. We report the regression results using White as the reference group. All models controlled for gender, grade, family structure, and family affluence. For Research Question 2, we tested the three-way interactions among perceived parenting (maternal monitoring, paternal monitoring, and parental support), perceived peer alcohol use (peer drinking and peer drunkenness), and gender in each racial and ethnic group. All models controlled for grade, family structure, and family affluence. Because the study aimed to examine the unique contribution of each parenting construct, for a given parenting construct (e.g., maternal monitoring), we statistically held constant the other two parenting variables in all models. In the study sample, the correlations between perceived maternal monitoring, paternal monitoring, and parental support ranged between .40 and .50, suggesting no multicollinearity issues.

Missing data for each key variable was about 3–5%, except for perceived paternal monitoring, which had 12% missing data. Missing data were listwise deleted. We conducted sensitivity analyses to compare the results between models that did or did not adjust for weight or clustering. Because the regression coefficients were comparable, we report results from the analyses without weight adjustment given the noninformativeness of the sampling weights (Solon et al., 2015). Because the number of subjects per cluster was small and the intraclass correlation coefficients were smaller than .01 at the district and school levels, we report results from the analyses without adjusting for clustering. We also controlled for family-wise error rates using a Holm-modified Bonferroni procedure for all three-way interactions (Holm, 1979).

Results

Descriptive Statistics

Of the 6744 adolescents, 50.6% were boys; 52.6% were White, 20.5% were Latinx, 16.0% were Black, 3.8% were Asian American, and 7.1% were multiracial; and 26.4% were seventh graders, 28.7% were eighth graders, 23.5% were ninth graders, and 21.4% were 10th graders. The mean age of the adolescents was 13.78, with a standard deviation of 1.31. Regarding family structure, 78.2% of the adolescents lived with two parents, 17.9% of adolescents lived with a single parent, and 3.9% had other living arrangements. Family affluence was moderately high, with a mean score of 6.07.

Table 1 presents the descriptive statistics for key independent and dependent variables by race and ethnicity. Black adolescents had the highest percentage of living in a single-parent family among adolescents from all racial and ethnic groups in our sample. Based on one-way analysis of variance tests, racial and ethnic differences were found for family affluence, drinking frequency, perceived peer drinking, perceived peer drunkenness, and the three perceived parenting factors. The following summarizes the statistically significant racial and ethnic differences based on pairwise comparisons of the means (not shown in Table 1). Asian American adolescents had lower levels of drinking frequency than Latinx, multiracial, and Black adolescents. Regarding perceived peer alcohol use, Asian American adolescents had lower levels of perceived peer drinking than White, Latinx, and multiracial adolescents and lower levels of perceived peer drunkenness than Latinx and multiracial adolescents. Perceived maternal monitoring, paternal monitoring, and parental support were highest among White adolescents. Black, Latinx, Asian American, and multiracial adolescents had similar levels of perceived maternal monitoring. Black adolescents had lower levels of perceived paternal monitoring than Asian American and Latinx adolescents. Asian American adolescents had lower levels of perceived parental support than Black and Latinx adolescents.

Table 1. Descriptive statistics for key variables

	All <i>N</i> =6744	White <i>n</i> =3550	Black <i>n</i> =1079	Asian <i>n</i> =254	Multiracial <i>n</i> =480	Latinx <i>n</i> =1381
Family structure*						
Two parents	78.2	83.3	58.7	82.3	77.3	80.1
Single parent	17.9	13.4	34.9	13.4	18.1	17.0
Other	3.9	3.3	6.5	4.3	4.6	2.9
Family affluence* (0–9)						
	6.07 (1.91)	6.43 (1.77)	5.80 (2.11)	6.26 (1.73)	6.34 (1.85)	5.24 (1.88)
Drinking frequency* (0–40)						
	1.95 (6.59)	1.76 (6.21)	2.37 (7.54)	0.82 (4.00)	2.27 (7.18)	2.21 (6.86)
Drunkenness frequency (0–40)						
	1.26 (5.75)	1.12 (5.50)	1.56 (6.66)	0.69 (4.21)	1.46 (6.35)	1.41 (5.61)
Peer drinking* (0–4)						
	0.90 (1.10)	0.91 (1.10)	0.82 (1.09)	0.65 (0.94)	1.02 (1.14)	0.92 (1.11)
Peer drunkenness* (0–4)						
	0.49 (0.89)	0.48 (0.87)	0.47 (0.92)	0.32 (0.72)	0.51 (0.91)	0.56 (0.92)
Maternal monitoring* (0–2)						
	1.62 (0.49)	1.67 (0.46)	1.57 (0.50)	1.57 (0.48)	1.55 (0.51)	1.56 (0.52)
Paternal monitoring* (0–2)						
	1.30 (0.67)	1.39 (0.64)	1.13 (0.73)	1.27 (0.63)	1.21 (0.70)	1.24 (0.69)
Parental support* (0–2)						
	1.48 (0.52)	1.53 (0.49)	1.47 (0.52)	1.30 (0.58)	1.41 (0.55)	1.41 (0.54)

Percentages are reported for categorical variables. Means and standard deviations (in parentheses) are reported for continuous variables. One-way analysis of variance was used for continuous variables and chi-square tests were used for categorical variables

**p* < .05

Table 2 Three-way interactions among perceived parenting, perceived peer alcohol use, and race and ethnicity

	Model 1 Drinking	Model 2 Drunkenness	Model 3 Drinking	Model 4 Drunkenness	Model 5 Drinking	Model 6 Drunkenness
<i>Race and ethnicity (ref. group: White)</i>						
Black	-0.88 (1.11)	-1.32 (0.79)	0.84 (0.61)	0.43 (0.45)	1.80 (0.92)	0.96 (0.69)
Asian	1.60 (2.07)	0.61 (1.54)	0.07 (1.23)	-0.40 (0.95)	1.32 (1.34)	0.70 (1.04)
Multiracial	-1.02 (1.59)	-0.59 (1.08)	-0.49 (0.95)	-0.39 (0.67)	1.69 (1.25)	1.63 (0.90)
Latinx	1.43 (1.05)	1.08 (0.76)	-0.02 (0.65)	0.08 (0.48)	0.25 (0.89)	0.36 (0.63)
<i>Parenting</i>						
Paternal monitoring (PM)	-0.31* (0.14)	-0.08 (0.12)	0.52* (0.24)	0.31 (0.18)	-0.29* (0.14)	-0.07 (0.12)
Maternal monitoring (MM)	0.13 (0.37)	0.21 (0.27)	-1.54* (0.20)	-1.02* (0.17)	-1.58* (0.20)	-1.01* (0.17)
Parental support (PS)	-0.16 (0.17)	-0.25 (0.15)	-0.12 (0.17)	-0.19 (0.15)	0.94* (0.31)	0.62* (0.23)
Peer drinking (PD) ^a	3.93* (0.33)	4.19* (0.28)	2.68* (0.22)	2.47* (0.20)	2.94* (0.30)	3.61* (0.28)
<i>Race and ethnicity × PD</i>						
Black × PD	0.61 (0.67)	1.63* (0.60)	-0.47 (0.39)	-0.01 (0.37)	-0.99 (0.61)	-1.29* (0.55)
Asian × PD	-3.40* (1.23)	-1.77 (1.13)	-2.47* (0.85)	-1.66 (0.89)	-3.24* (0.99)	-3.13* (1.01)
Multiracial × PD	0.17 (0.84)	0.66 (0.73)	-0.26 (0.54)	0.11 (0.48)	-1.80* (0.77)	-2.89* (0.75)
Latinx × PD	-1.00 (0.56)	-1.25* (0.49)	0.06 (0.38)	-0.21 (0.34)	0.02 (0.51)	-0.60 (0.47)
<i>Race and ethnicity × parenting</i>						
Black × MM	0.62 (0.63)	0.85 (0.46)				
Black × PM			-0.52 (0.41)	-0.30 (0.31)		
Black × PS					-1.11* (0.56)	-0.61 (0.43)
Asian × MM	-1.14 (1.21)	-0.63 (0.91)				
Asian × PM			-0.30 (0.82)	-0.04 (0.64)		
Asian × PS					-1.06 (0.89)	-0.72 (0.70)
Multiracial × MM	0.53 (0.92)	0.32 (0.64)				
Multiracial × PM			0.19 (0.62)	0.18 (0.46)		
Multiracial × PS					-1.27 (0.78)	-1.19* (0.57)
Latinx × MM	-0.80 (0.60)	-0.63 (0.44)				
Latinx × PM			0.06	-0.05		

Table 2 (continued)

	Model 1 Drinking	Model 2 Drunkenness	Model 3 Drinking	Model 4 Drunkenness	Model 5 Drinking	Model 6 Drunkenness
Latinx × PS			(0.42)	(0.31)	−0.12 (0.54)	−0.19 (0.40)
<i>PD × parenting</i>						
PD × MM	−1.57* (0.20)	−1.77* (0.18)				
PD × PM			−0.95* (0.15)	−0.68* (0.15)		
PD × PS					−0.98* (0.19)	−1.38* (0.19)
<i>Race and ethnicity × PD × parenting</i>						
Black × PD × MM	−0.10 (0.42)	−0.72 (0.39)				
Black × PD × PM			0.73* (0.30)	0.35 (0.29)		
Black × PD × PS					0.98* (0.40)	1.25* (0.37)
Asian × PD × MM	1.84* (0.80)	1.59* (0.77)				
Asian × PD × PM			1.66* (0.67)	2.21* (0.74)		
Asian × PD × PS					1.93* (0.72)	2.83* (0.73)
Multiracial × PD × MM	0.09 (0.53)	−0.11 (0.50)				
Multiracial × PD × PM			0.58 (0.39)	0.49 (0.40)		
Multiracial × PD × PS					1.56* (0.52)	2.61* (0.52)
Latinx × PD × MM	0.74* (0.35)	0.82* (0.32)				
Latinx × PD × PM			0.05 (0.28)	0.07 (0.27)		
Latinx × PD × PS					0.04 (0.35)	0.27 (0.33)
Constant	0.74 (0.71)	0.57 (0.53)	2.38* (0.55)	2.08* (0.44)	1.99* (0.63)	1.32* (0.48)
<i>N</i>	6744	6744	6744	6744	6744	6744
<i>R</i> ²	.12	.13	.12	.11	.12	.12

Standard errors shown in parentheses. All models controlled for gender, grade, family affluence, and family structure. Significant three-way interaction terms after controlling for family-wise error rates are shown in bold

**p* < .05

^aPeer drinking was used as a moderator in Models 1, 3, and 5 for drinking outcome. Peer drunkenness was used as a moderator in Models 2, 4, and 6 for drunkenness outcome

Racial and ethnic differences in the interaction between perceived peer alcohol use and positive parenting have rarely been studied. The most intriguing finding of this study is that

all three perceived positive parenting factors buffered the influence of perceived peer alcohol use on adolescent alcohol use among White boys and girls, but such moderating

Multiple Regression Results

Racial and Ethnic Differences

Table 2 presents the multiple regression results of the three-way interactions among perceived peer alcohol use, parenting, and race and ethnicity (with White as the reference group). The three-way interaction results suggest some racial and ethnic differences in the moderating effects of perceived positive parenting on the relationship between perceived peer alcohol use and adolescent alcohol use. All three perceived parenting factors buffered the influence of perceived peer alcohol use on alcohol use among White adolescents, as indicated by the statistically significant two-way interactions between perceived peer alcohol use and parenting (i.e., coefficients for peer drink \times parenting reflect the effect of their two-way interaction on alcohol use when race and ethnicity = 0). However, some moderating effects differed across racial and ethnic groups. When aggregating boys and girls, the moderating effects of perceived maternal monitoring did not differ between White, Black, and multiracial adolescents, but the moderating effects were smaller among Latinx adolescents than White adolescents. The moderating effects of perceived paternal monitoring were smaller among Black adolescents than among White adolescents. Perceived parental support did not appear to buffer the relationship between perceived peer alcohol use and adolescent alcohol use among Black and multiracial adolescents. The moderating effects for all three perceived parenting factors also differed between Asian American and White adolescents, with some moderating effects appearing to facilitate rather than buffer alcohol use among Asian American adolescents. Results for the three-way interactions with other racial and ethnic groups as the reference group are available upon request from the corresponding author.

Gender Differences

Tables 3, 4, and 5 present the multiple regression results of the three-way interactions among perceived peer alcohol use, parenting, and gender (with boy as the reference group) in each racial and ethnic group. Table 6 presents the two-way interaction coefficients between perceived peer alcohol use and parenting from the three-way interaction models to facilitate the interpretation of gender differences. We did not observe gender differences in perceived parenting's moderating effect among White adolescents. Among Black, multiracial, and Latinx adolescents, perceived maternal monitoring and paternal monitoring had larger moderating effects on the relationship between perceived peer drunkenness and adolescent drunkenness among boys than among girls. Among multiracial adolescents, perceived maternal monitoring had larger moderating effects on the relationship between perceived peer drinking and adolescent drinking among boys than among girls. Among Asian American adolescents, perceived parental support exacerbated the influence of perceived peer alcohol use among boys and had trivial influences among girls.

Holm–Bonferroni Adjustment for Multiple Comparisons

After controlling for family-wise error rates, the moderating effects of perceived parental support on the relationship between perceived peer drunkenness and adolescent drunkenness still differed among White adolescents relative to among Black, Asian American, and multiracial adolescents (shown in bold in Table 2). After controlling for family-wise error rates, the gender differences remained statistically significant for the moderating effects of perceived maternal monitoring among multiracial adolescents and the moderating effects of perceived maternal and paternal monitoring on the relationship between peer and adolescent drunkenness

Table 3 Three-way interaction among perceived maternal monitoring, perceived peer alcohol use, and gender in each racial and ethnic group

	Drinking						Drunkennes													
	White		Black		Asian		Multiracial		Latinx		White		Black		Asian		Multiracial		Latinx	
Male	-2.50*	1.72	5.43*	-4.34	-2.48	-0.88	-1.09	2.77	-6.17*	-2.81*	(1.22)	(2.22)	(2.44)	(3.19)	(1.86)	(0.88)	(1.57)	(2.08)	(2.09)	(1.22)
PD	3.35*	5.49*	0.92	1.69	2.43*	3.54*	3.17*	0.61	1.39	1.68*	(0.48)	(1.10)	(1.14)	(1.15)	(0.74)	(0.43)	(0.97)	(1.62)	(0.89)	(0.60)
PM	-0.50*	-0.37	0.40	0.17	-0.18	-0.10	-0.43	0.73	0.12	-0.03	(0.19)	(0.36)	(0.47)	(0.52)	(0.32)	(0.16)	(0.31)	(0.46)	(0.44)	(0.27)
PS	0.04	-0.70	0.02	-0.33	-0.17	-0.23	-0.41	0.14	-0.47	-0.18	(0.23)	(0.49)	(0.49)	(0.65)	(0.39)	(0.20)	(0.42)	(0.48)	(0.54)	(0.32)
MM	-0.66	1.71	-0.13	-0.81	-1.67	-0.11	0.88	-0.67	-1.03	-1.41*	(0.54)	(1.09)	(1.08)	(1.43)	(0.91)	(0.40)	(0.79)	(0.93)	(0.91)	(0.60)
Male×PD	0.88	-1.43	-1.05	6.22*	0.72	0.98	4.59*	1.83	9.97*	2.25*	(0.63)	(1.40)	(1.47)	(1.70)	(0.98)	(0.55)	(1.25)	(1.85)	(1.51)	(0.80)
Male×MM	1.41*	-0.98	-3.21*	2.79	1.32	0.48	0.75	-1.80	3.85*	1.57*	(0.68)	(1.28)	(1.43)	(1.85)	(1.07)	(0.49)	(0.93)	(1.23)	(1.24)	(0.71)
PD×MM	-1.36*	-2.34*	-0.27	-0.05	-0.50	-1.64*	-1.13	-0.19	0.12	-0.27	(0.28)	(0.68)	(0.72)	(0.72)	(0.45)	(0.27)	(0.61)	(1.08)	(0.61)	(0.38)
Male×PD×MM	-0.32	1.08	1.54	-3.57*	-0.44	-0.10	-2.34*	0.86	-5.88*	-1.14*	(0.38)	(0.88)	(0.96)	(1.09)	(0.61)	(0.35)	(0.80)	(1.24)	(1.03)	(0.53)
Constant	1.85	0.35	-0.24	1.96	3.77*	1.12	1.17	0.39	3.66*	3.14*	(1.01)	(1.93)	(1.96)	(2.69)	(1.57)	(0.74)	(1.42)	(1.72)	(1.84)	(1.02)
N	3550	1079	254	480	1381	3550	1079	254	480	1381										
R ²	.13	.11	.18	.17	.13	.14	.15	.30	.25	.12										

Standard errors shown in parentheses. All models controlled for grade, family affluence, and family structure. Male was coded as 1 and female was coded as 0. Perceived peer drinking was used in the model for drinking; perceived peer drunkenness was used in the model for drunkenness. Significant three-way interaction terms after controlling for family-wise error rates are shown in bold

MM maternal monitoring, PD peer drinking or peer drunkenness, PM paternal monitoring, PS parental support

* $p < .05$

Table 4 Three-way interaction among perceived paternal monitoring, perceived peer alcohol use, and gender in each racial and ethnic group

	Drinking					Drunkenness				
	White	Black	Asian	Multiracial	Latinx	White	Black	Asian	Multiracial	Latinx
Male	-0.93 (0.72)	-0.13 (1.12)	0.67 (1.45)	-0.75 (1.94)	-0.32 (1.11)	-0.69 (0.53)	-0.24 (0.85)	-0.20 (1.25)	-1.62 (1.36)	-1.11 (0.76)
PD	2.29* (0.27)	1.81* (0.50)	0.13 (0.72)	2.09* (0.71)	2.84* (0.45)	1.90* (0.27)	1.14* (0.48)	-0.01 (1.10)	1.32* (0.60)	1.40* (0.37)
Male × PD	0.81* (0.41)	1.12 (0.76)	0.33 (1.01)	1.29 (1.13)	-0.24 (0.65)	1.15* (0.39)	3.26* (0.72)	1.52 (1.30)	3.97* (1.01)	1.97* (0.55)
PM	0.37 (0.32)	-0.13 (0.57)	0.13 (0.69)	0.70 (0.90)	0.73 (0.53)	0.24 (0.24)	-0.26 (0.45)	0.26 (0.58)	0.11 (0.66)	0.03 (0.38)
Male × PM	0.45 (0.44)	0.06 (0.79)	-0.36 (0.97)	0.42 (1.27)	-0.06 (0.72)	0.33 (0.34)	0.18 (0.61)	0.05 (0.84)	1.11 (0.92)	0.60 (0.51)
PD × PM	-0.94* (0.20)	0.16 (0.44)	0.19 (0.60)	-0.57 (0.55)	-1.03* (0.34)	-0.75* (0.21)	0.39 (0.41)	0.08 (1.00)	0.42 (0.58)	-0.06 (0.31)
Male × PD × PM	-0.17 (0.29)	-0.80 (0.61)	0.93 (0.81)	0.13 (0.82)	0.35 (0.49)	-0.02 (0.29)	-1.72* (0.57)	1.92 (1.15)	-1.86* (0.83)	-1.22* (0.44)
MM	-1.77* (0.27)	-0.61 (0.54)	-1.36* (0.64)	-1.45 (0.74)	-1.72* (0.45)	-1.21* (0.24)	-0.09 (0.47)	-1.58* (0.60)	-1.11 (0.64)	-1.17* (0.37)
PS	-0.02 (0.23)	-0.51 (0.49)	0.12 (0.49)	-0.36 (0.65)	-0.20 (0.39)	-0.22 (0.21)	-0.22 (0.43)	0.22 (0.47)	-0.46 (0.57)	-0.19 (0.32)
Constant	2.68* (0.72)	3.68* (1.30)	2.26 (1.55)	2.42 (2.11)	2.80* (1.11)	2.61* (0.59)	2.19* (1.08)	2.68 (1.42)	4.10* (1.68)	2.71* (0.82)
<i>N</i>	3550	1079	254	480	1381	3550	1079	254	480	1381
<i>R</i> ²	.13	.10	.17	.14	.13	.12	.13	.32	.18	.12

Standard errors shown in parentheses. All models controlled for grade, family affluence, and family structure. Perceived peer drinking was used in the model for drinking; perceived peer drunkenness was used in the model for drunkenness. Significant three-way interaction terms after controlling for family-wise error rates are shown in bold

MM maternal monitoring, *PD* peer drinking or peer drunkenness, *PM* paternal monitoring, *PS* parental support

* $p < .05$

Table 5 Three-way interaction among perceived parental support, perceived peer alcohol use, and gender in each racial and ethnic group

	Drinking					Drunkenness				
	White	Black	Asian	Multiracial	Latinx	White	Black	Asian	Multiracial	Latinx
Male	-0.18 (0.95)	1.38 (1.81)	1.82 (1.49)	-0.80 (2.51)	-0.26 (1.52)	-0.70 (0.70)	0.41 (1.38)	0.85 (1.28)	-1.43 (1.81)	-0.49 (1.01)
PD	2.90* (0.39)	1.24 (0.86)	0.28 (0.95)	1.61 (1.07)	2.91* (0.62)	2.95* (0.38)	2.43* (0.84)	-0.04 (1.22)	0.36 (0.93)	2.88* (0.53)
Male×PD	-0.06 (0.56)	1.59 (1.23)	-1.06 (1.17)	0.05 (1.58)	0.16 (0.87)	1.28* (0.53)	0.15 (1.12)	0.50 (1.42)	3.32 (1.74)	0.25 (0.74)
PS	1.10* (0.41)	-0.10 (0.81)	0.05 (0.77)	-0.80 (1.13)	0.86 (0.71)	0.52 (0.31)	0.05 (0.63)	0.00 (0.67)	-1.11 (0.83)	0.48 (0.49)
Male×PS	0.03 (0.57)	-0.92 (1.12)	-1.35 (1.00)	0.46 (1.57)	-0.04 (0.94)	0.34 (0.42)	-0.26 (0.86)	-0.77 (0.87)	0.88 (1.16)	0.11 (0.65)
PD×PS	-1.17* (0.25)	0.53 (0.57)	0.05 (0.65)	-0.10 (0.74)	-0.86* (0.43)	-1.34* (0.26)	-0.72 (0.57)	0.13 (0.84)	1.12 (0.72)	-1.25* (0.38)
Male×PD×PS	0.35 (0.36)	-1.01 (0.81)	2.25* (0.85)	0.92 (1.06)	-0.14 (0.61)	-0.15 (0.36)	0.97 (0.75)	2.46* (1.00)	-1.10 (1.15)	0.34 (0.54)
MM	-1.79* (0.27)	-0.60 (0.54)	-1.42* (0.63)	-1.55* (0.74)	-1.77* (0.45)	-1.14* (0.24)	-0.14 (0.47)	-1.60* (0.60)	-0.98 (0.64)	-1.25* (0.37)
PM	-0.50* (0.19)	-0.28 (0.36)	0.37 (0.46)	0.37 (0.53)	-0.21 (0.32)	-0.10 (0.17)	-0.38 (0.31)	0.69 (0.44)	0.33 (0.47)	-0.06 (0.27)
Constant	2.18* (0.82)	3.24* (1.53)	2.38 (1.64)	3.68 (2.29)	2.47 (1.32)	1.79* (0.64)	2.18 (1.23)	2.33 (1.45)	4.48* (1.74)	2.01* (0.91)
N	3550	1079	254	480	1381	3550	1079	254	480	1381
R ²	.12	.10	.21	.14	.13	.13	.12	.35	.17	.12

Standard errors shown in parentheses. All models controlled for grade, family affluence, and family structure. Perceived peer drinking was used in the model for drinking; perceived peer drunkenness was used in the model for drunkenness

MMmaternal monitoring, PDpeer drinking or peer drunkenness, PMpaternal monitoring, PSparental support

*p < .05

Table 6 Interaction between perceived parenting and perceived peer alcohol use by gender in each racial and ethnic group

	White		Black		Asian American		Multiracial		Latinx	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Drinking										
PD×MM	-1.36*	-1.68*	-2.34*	-1.26*	-0.27	1.27*	-0.05	-3.61*	-0.50	-0.94*
	(0.28)	(0.25)	(0.68)	(0.56)	(0.72)	(0.64)	(0.72)	(0.81)	(0.45)	(0.41)
PD×PM	-0.94*	-1.10*	0.16	-0.64	0.19	1.12*	-0.57	-0.44	-1.03*	-0.68
	(0.20)	(0.21)	(0.44)	(0.43)	(0.60)	(0.55)	(0.55)	(0.61)	(0.34)	(0.36)
PD×PS	-1.17*	-0.83*	0.53	-0.47	0.05	2.30*	-0.10	0.81	-0.86*	-1.00*
	(0.25)	(0.26)	(0.57)	(0.58)	(0.65)	(0.57)	(0.74)	(0.75)	(0.43)	(0.44)
Drunkenness										
PD×MM	-1.64*	-1.74*	-1.13	-3.47*	-0.19	0.66	0.12	-5.76*	-0.27	-1.42*
	(0.27)	(0.23)	(0.61)	(0.53)	(1.08)	(0.61)	(0.61)	(0.84)	(0.38)	(0.36)
PD×PM	-0.75*	-0.76*	0.39	-1.33*	0.08	2.00*	0.42	-1.45*	-0.06	-1.28*
	(0.21)	(0.20)	(0.41)	(0.39)	(1.00)	(0.57)	(0.58)	(0.60)	(0.31)	(0.32)
PD×PS	-1.34*	-1.49*	-0.72	0.25	0.13	2.59*	1.12	0.02	-1.25*	-0.91*
	(0.26)	(0.25)	(0.57)	(0.49)	(0.84)	(0.56)	(0.72)	(0.90)	(0.38)	(0.37)

Each cell in the table is based on a different three-way interaction model (perceived parenting×peer alcohol use×gender) and provides estimates of the two-way interaction effects (perceived parenting×peer alcohol use). Within each row, statistically significant three-way interactions within each racial and ethnic group were shown in bold. The two-way interaction coefficients for female were extracted from Tables 3, 4, and 5. The two-way interaction coefficients for male were from models with female as the reference group. Standard errors shown in parentheses. All models controlled for grade, family affluence, family structure, and two other parenting variables. Perceived peer drinking was used in the model for drinking; perceived peer drunkenness was used in the model for drunkenness

MM maternal monitoring, *PD* peer drinking or peer drunkenness, *PM* paternal monitoring, *PS* parental support

* $p < .05$

among Black adolescents (shown in bold in Tables 3 and 4). Although some coefficients become statistically nonsignificant after the adjustment, the main findings held.

Discussion

This study contributed to the growing literature on race, ethnic, and gender disparities in alcohol use by exploring whether the moderating role of perceived positive parenting in the association between perceived peer alcohol use and adolescent alcohol use varied as a function of race and ethnicity or gender in a nationally representative sample of 7th- to 10th-grade U.S. adolescents. We examined the unique moderating effects of three positive parenting dimensions (perceived maternal monitoring, paternal monitoring, and parental support) on two alcohol use outcomes (past-month drinking frequency and drunkenness) among five racial and ethnic groups of U.S. adolescents (White, Black, Latinx, Asian American, and multiracial). Our study contributed to the literature by finding notable racial, ethnic, and gender differences in the moderating relationships. Our findings have implications for designing and adapting parent-based alcohol prevention programs for adolescent boys and girls of color.

Racial and ethnic differences in the interaction between perceived peer alcohol use and positive parenting have rarely been studied. The most intriguing finding of this study is that all three perceived positive parenting factors buffered the influence of perceived peer alcohol use on adolescent alcohol use among White boys and girls, but such moderating effects were inconsistent among boys and girls from other racial and ethnic groups. Among Black and multiracial adolescents, perceived maternal monitoring appeared to be more influential in buffering perceived peer alcohol use than paternal monitoring and parental support. This may be because Black and multiracial adolescents are more likely to be in single-mother households compared to adolescents from other racial and ethnic groups (Schlabach, 2013; U.S. Census Bureau, 2020). Previous research also suggested that perceived paternal monitoring was less salient than perceived maternal monitoring when predicting adolescent alcohol use among a diverse sample of adolescents (Webb et al., 2002). Among Latinx adolescents, perceived parental support buffered the relationship between perceived peer alcohol use and alcohol use for both boys and girls, but the buffering effects of maternal and paternal monitoring vary by the gender of the adolescent. Among Asian American adolescents, perceived parental monitoring and support did not appear to buffer the peer influences among girls but exacerbated peer influences among boys. The inconsistent moderating effects of parental monitoring and support on adolescent alcohol use have also been documented in previous research (Crosnoe et al., 2002).

The racial and ethnic differences in the interaction effects between positive parenting and perceived peer alcohol use may reflect racial and ethnic and cultural differences in adolescents' perceptions and interpretations of parental monitoring and support. Previous research suggested that the meaning of parental monitoring, support, and parent-adolescent relationships differ across cultures (Chao, 2001; McNeely & Barber, 2010). The mechanisms of whether and how each positive parenting factor protects adolescents from negative peer influences and alcohol use across racial and ethnic groups may also differ and remain to be tested.

This study is unique in that it examined gender differences in the moderating effects of perceived positive parenting on the relationship between perceived peer alcohol use and adolescent alcohol use in each racial and ethnic group. Gender differences in the moderating effects were not observed among White adolescents but were substantial among adolescents of

color. More gender differences were observed for drunkenness frequency compared to drinking frequency. Among Black, Latinx, and multiracial adolescents, the buffering effects of perceived maternal and paternal monitoring on peer drunkenness were larger among boys than among girls. This finding suggests that although higher levels of perceived parental monitoring can lessen the strong influence of perceived peer drunkenness on drunkenness among Black, Latinx, and multiracial boys, higher levels of perceived parental monitoring may not be enough to buffer the peer influence on drunkenness among Black, Latinx, and multiracial girls. Previous studies found that boys may be more susceptible to peer influence than girls (Crawford & Novak, 2002), and boys' alcohol use might be more strongly influenced by parental monitoring than girls' alcohol use among ethnically diverse samples of adolescents (Bo & Jaccard, 2020; Borawski et al., 2003; Griffin et al., 2000). However, these studies did not explore gender differences in the interaction between perceived parental monitoring and peer drinking. Future research is needed to study the mechanisms of these gender differences.

Another pattern observed for the gender differences is that perceived parental monitoring and support exacerbated the influences of perceived peer alcohol use among Asian American boys but did not appear to moderate the influence of perceived peer alcohol use among Asian American girls. One previous study found that parental support buffered peer influence on girls' drinking but exacerbated peer influence on boys' drinking in a mixed sample of White and Latinx adolescents (Marshal & Chassin, 2000). Another study found that parental involvement increased the risk of boys to negative peer influences but did not interact with peer influence among girls among an ethnically diverse sample of adolescents (Crosnoe et al., 2002). We only observed this gender difference among Asian American adolescents. Asian American girls may already perceive drinking to be unaccepted under the influence of Asian cultural gender norms and therefore less influenced by their perceived peer alcohol use than Asian American boys, regardless of their levels of perceived positive parenting. Because emotional support is generally less expressed in Asian families (McNeely & Barber, 2010), Asian American boys who consider their parents as loving and understanding may perceive that their parents are more permissive in their drinking behaviors and therefore, are more susceptible to peer influences. Another possibility is that Asian American boys might perceive parental monitoring and support as threats to their autonomy and independence and therefore, are more likely to conform to their peer group. Similar explanations have also been documented in previous research for ethnically diverse samples of adolescents (Crosnoe et al., 2002). Future research that examines these factors (e.g., parental permissiveness of adolescent drinking, parental alcohol use norms) is needed to elucidate the specific mechanisms that lead to this facilitating relationship among Asian American boys. Thus far, there have been limited findings regarding gender differences in the interaction effects between perceived parenting and peer drinking (Marschall-Lévesque et al., 2014). More research is needed to test these three-way interactions and clarify the specific mechanisms of how parenting and peer factors may influence alcohol use differently for boys and girls of color.

Limitations

The study has several limitations. First, this study used cross-sectional data, hampering confidence in any causal inferences. Second, the study relied on adolescents' self-reports of perceptions of peer alcohol use and parenting. The associations we tested do not reflect the influence of actual peer drinking and parenting behaviors on adolescent drinking. Adolescents may be inaccurate in characterizing their friends' behavior and attitudes (Jaccard et al., 2005). Nevertheless, previous research found that adolescent perceptions of parenting tended to be more predictive of adolescent risk behavior than parent reports (Jaccard et al., 1998). Third,

the study did not include Native American adolescents due to insufficient sample sizes. The sample sizes for Asian American and multiracial adolescents in our sample are also small. Because there is a great need for alcohol prevention services for Native American, Asian American, and multiracial adolescents, more research and prevention efforts are needed for these three groups (Choi & Lahey, 2006; Fang & Schinke, 2013; Goings et al., 2018; Whitesell et al., 2012). Fourth, the study did not include Latinx, Asian American, and multiracial subgroups due to the unavailability of such information. Future research is encouraged to have more racial and ethnic subgroups. Fifth, the study could only explore two gender groups because the survey did not provide other options. Future research is encouraged to be more inclusive of gender identities. Finally, our modeling was subject to omitted variable bias. The study included limited parenting constructs and did not explore alcohol-specific determinants due to the unavailability of such variables in the dataset. Despite these limitations, the research provides numerous interesting results and leads to detailed follow-up research.

Implications for Research and Practice

Previous research on adolescent drinking often used race, ethnicity, and gender as covariates or focused on a single dimension of racial and ethnic or gender differences (Leung et al., 2014). Our findings suggest that it is necessary to formally examine racial, ethnic, and gender differences. Future research is encouraged to study the intersection of race, ethnicity, and gender to better understand disparities in alcohol use. Adolescents in different racial and ethnic groups may have different motives, beliefs, and norms towards alcohol use (Cooper et al., 2008; Mrug & McCay, 2013). Similarly, parental alcohol norms, beliefs, consumption, and modeling may also differ by race and ethnicity (Peterson et al., 1994). Future research that examines a comprehensive list of parental factors (e.g., alcohol-specific parenting, parental alcohol use, general parenting, parenting styles) and adolescent's alcohol use decision making factors (e.g., drinking related beliefs, norms, self-efficacy, social images, emotions) is needed to identify the unique mechanism of how a specific parenting factor influences adolescent drinking through buffering other risk factors or modifying adolescent's alcohol use decision making, in each racial and ethnic group. The findings have implications for tailoring existing parent-based alcohol use prevention programs and developing new programs for adolescents of color. Our findings suggest that positive parenting factors that are protective for White boys and girls do not necessarily protect boys and girls from other racial and ethnic groups against alcohol use in the same way. Although there are many common risk and protective factors for adolescent alcohol use across racial, ethnic, and gender subgroups, risk and protective factors unique to each subgroup exist and should be addressed in prevention programs (Terling Watt & McCoy Rogers, 2007; Thai et al., 2010). Parent-based alcohol use prevention programs need to be culturally sensitive and account for gender differences.

Ethics declarations

Conflict of interest

We have no conflict of interest to disclose.

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