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Alcohol Use and Related Behaviors among Late Adolescent Urban Youth: Peer and Parent Influences

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Abstract

Peer and parent influences on alcohol use and related risky behaviors were examined in a sample of late adolescent ($M = 17.3$ years; $SD = 1.11$ years) urban youth. Participants ($N = 400$) completed an online measure assessing peer influences of alcohol use and alcohol offers, and parent influences of rules against alcohol use and perceived levels of emotional family support, relative to youths' alcohol use, binge drinking, alcohol-related consequences, and intentions to drink. Hierarchical regression analyses revealed that increased peer alcohol use and alcohol offers were associated with youths' increased drinking, binge drinking, alcohol-related consequences, and intentions to drink. Controlling for peer influences, parental rules against alcohol use were associated with decreased drinking, binge drinking, and intentions to drink; increased levels of family support was associated with decreased alcohol-related consequences and intentions to drink. These findings suggest that parental influences, albeit small relative to peer influences, are associated with fewer instances of monthly alcohol use and related risky behaviors among late adolescent urban youth.

Keywords

youth; alcohol; peers; parents; influences

Introduction

Although studies on peer and parent influences on adolescent drinking abound, few concurrently examine the relationship of these influences to binge drinking, alcohol-related consequences, and intentions to drink, particularly among late adolescents. Alcohol is the most commonly used drug among adolescents. Among high school seniors, 43% report past-month drinking and 25% report binge drinking (five or more drinks in a row) within the past 2 weeks (Johnston, O'Malley, Bachman, & Schulenberg, 2009a). Though high school males continue to have higher rates of heavy alcohol use, gender differences in past-month alcohol use have been absent for several years (Johnston et al, 2009a). Rates among ethnic and racial groups, however, continue to differ. Black youths drink less than their White and Hispanic counterparts (Johnston, O'Malley, Bachman, & Schulenberg, 2009b). Despite their lower rates of alcohol use, Black youths experience a disproportionate share of the negative

consequences (e.g., trouble with the law, academics, peer relations) of drinking relative to their White and Hispanic peers (Wallace et al. 1999; Wallace & Muroff, 2002).

Developmentally, the period of middle to late adolescence is marked by increased levels of peer interactions and a concomitant decrease in parental interactions (Dishion & Owen, 2002; Windle 2000). Consequently, among the strongest predictors of adolescent alcohol use are the influences of peer use and perceived peer attitudes toward alcohol use (Cleveland & Wiebe, 2003). Because peers model substance use, endorse pro-substance use attitudes, and exert pressure and provide opportunities to use substances, theories on the etiology of adolescent substance use regard peers as a key explanatory variable (Oetting & Beauvais, 1990). Social Learning Theory posits peers as the responsible figure for teaching youths how to endorse and adopt pro-substance use attitudes and behaviors (Bahr, Hoffman, & Yang, 2005). Specifically, the active peer influence of offering a drink, and the passive peer influence of modeling drinking are two powerful forces which shape adolescent alcohol use (Wood, Read, Mitchell, & Brand, 2004).

Parents can buffer their children from the influence of substance using peers. Parental influences associated with adolescent alcohol use include, but are not limited to nurturance or support, monitoring, and parent-child communication (Steinberg, 2001). Parental support is typified when parents demonstrate care, attention, and acceptance toward their child. A recent study of college freshman found that parental monitoring, disapproval of drinking, and permissiveness was associated with alcohol use and related negative consequence, whereas parental support was not (Wood et al., 2004).

Parental monitoring has also been shown to decrease the risk of adolescent alcohol use (Marshall & Chassin, 2000; Pilgrim, Schulenberg, O'Malley, Bachman, & Johnston, 2006). Ideally, parents monitor their children to learn whether their rules around alcohol use are being followed. Under such conditions, a prerequisite for parental monitoring is the establishment and communication of rules against alcohol use. Yet, few studies assess whether parents warn their children about the harms of substance use and establish and communicate rules against use; rather, most broadly measure the frequency of communication about substance use (Ennett, Bauman, Foshee, Pemberton, & Hicks, 2001).

The need for parents to establish and communicate their rules against alcohol use may be particularly salient as youths mature into late adolescence. During this period, youths experience increased desires for autonomy, pervasive peer influences, and societal messages promoting alcohol use. On the eve of late adolescence, parents sense their child's desire to disconnect from the family sphere and may respond by withdrawing support and guidance, inadvertently serving to increase their child's autonomy (Dishion, Poulin, & Medici Skaggs, 2000). At the same time, youths may interpret parental passivity as approval—or lack of disapproval—to use alcohol, thereby placing youths at risk for use (Jackson, Henriksen, & Dickinson, 1999). Indeed, a bidirectional relationship between parental disengagement and adolescent involvement with deviant peers may lead to increased problem behaviors in late adolescence (Dishion, Nelson, & Bullock, 2004).

Much research on the salient predictors of adolescent alcohol use—not only parental and peer influences—comes from White, middle-class youths and may not generalize to other such populations as urban minority youth (Kung & Farrell, 2000; Steinberg, 2001). Racial differences in the relationship between binge drinking and each parental monitoring, parental education, and parental attitudes have been found (Bersamin, Paschall, & Flewelling, 2005). One study of substance use predictors found a mixed pattern: family closeness operated similarly for Black and White youth, but peer use was more strongly predictive for White youths relative to Black youths (Brown, Miller, & Clayton, 2004). Differences in substance use rates among urban and non-urban youths provide an additional reason to generalize findings across youths with caution (Wallace et. al., 1998).

The present study contributes to the need for literature on peer and parent influences by providing data from a sample of late adolescent urban minority youth on the the relative influence of peers (alcohol use and offers) and parents (rules against use and family support) on alcohol use, binge drinking, alcohol-related consequences, and intentions to drink in the future.

Given the developmental period of our sample, we were confident that peer influences of alcohol use and alcohol offers would be associated with youth's alcohol use and related risky behaviors. Would parental rules against alcohol use and emotional family support continue to exert any influence at this late age when controlling for the influence of peers? We hypothesized that higher reports of peer alcohol use and peer alcohol offers would be associated with increased past-month drinking and binge drinking, more negative alcohol-related consequences, and higher intentions to drink alcohol in the future. We further hypothesized that when controlling for the aforementioned associations between peers and youths, increased parental rules around alcohol use and increased emotional family support would each be negatively associated with past-month drinking, binge drinking, alcohol-related consequences, and intentions to drink alcohol in the future.

Method

Participants

The study sample was 400 youths who were participants in a clinical trial of an alcohol abuse prevention program (Schinke, Schwinn, & Cole, 2006; Schinke, Schwinn, Di Noia, & Cole, 2004; Schinke, Schwinn, & Ozanian, 2005). Recruitment occurred at community-based agencies serving economically disadvantaged youths in greater New York City, Delaware, and New Jersey. At recruitment, youths mean age = 11.5 years (54% Black, 30% Latino, 11% White, and 5% Other). Youths were eligible to participate after returning their signed assent forms and their parents' signed permission forms. Following enrollment procedures, youths were randomly assigned to control and intervention arms. Data reported in this paper are from the sixth-annual follow-up measure following initial intervention delivery.

Data from the sixth-annual measure include 400 (75%) of the original 513 youths involved in the clinical trial. Of the 113 youths lost to follow-up, 35 failed to complete the sixth-annual measure during the data collection window, 33 were unavailable due to nonworking

contact information (telephone, e-mail, mailing address), 23 were removed from the sample due to contradictory response patterns on the outcome variables, 19 requested to discontinue study participation, and 3 had died.

Procedures

Sixth-annual follow-up data were collected primarily online. By mail, youths received the address to a secure, password-protected website. After entering their user code, youths were directed to the online survey. Participants without Internet access were invited to complete the survey online at our research facilities (10%) or by telephone (35%). To ensure telephone respondents' privacy, youths received by mail a booklet containing only the answer choices to survey questions. Over the phone, research assistants then read aloud the questions and asked youths to respond with the letter corresponding to their answer.

Measures

Demographics—Information included youths' age, gender, ethnic-racial group, average school grades during their most recent school attendance, living arrangement (with parents, alone, roommate(s), spouse, other relative), and whether they were currently enrolled in school (high school, college, GED, vocational training).

Alcohol use and intentions—Questions for past-month alcohol use and binge drinking were adapted from the Youth Risk Behavior Survey (YRBS; Centers for Disease Control and Prevention, 2006) and Monitoring the Future (MTF; MTF Remote Access Service, 2007). Using drop-down menus, youths specified the frequency of alcohol use and binge drinking (five or more drinks in a row) for the past 30 days. On a 10-point scale, youths reported the likelihood of their drinking alcohol in the next year. Test-retest reliabilities for YRBS and MTF items are, respectively, .82 to .95 and .77 to .91 (Centers for Disease Control and Prevention, 2004; MTF Remote Access Service, 2007).

Alcohol-related consequences—Responding to eight items from the American Drug and Alcohol Survey (Beauvais, Edwards, & Oetting, 2003), youths specified how many times in the past month their drinking caused them to get arrested; argue and fight with peers, parents, or others; pass out; destroy property; or harm themselves or others; $\alpha = .71$.

Peer influences—Two components of peer influence were assessed, *peer alcohol use* and *alcohol offers*. To determine *peer alcohol use*, two items from the Models for Drug Use (Farrell & White, 1998) asked youths to report how many of their closest friends consumed alcohol and how many had been drunk in the past month (All of them = 4, None of them = 1). A single item assessed *alcohol offers* from peers by asking youths to report how many of their closest friends asked them to drink alcohol in the past month.

Parent influences—Two measures of parent influence were assessed, *rules against use* and *family support*. Developed for the larger study, three items assessed *rules against drinking*. Using a 4-point Likert-scale, youths reported whether their parents had rules against drinking, whether they would get in trouble if caught drinking, and whether they were aware of their parents' rules around drinking; $\alpha = .85$. A 4-item subscale from the

Multidimensional Scale of Perceived Support (Zimet, Dahlem, Zimet, & Farley, 1988) assessed *family support*. Youths reported their level of agreement with such items as, “I get the emotional help and support I need from my family,” and “I can talk about my problems with my family.” Cronbach’s alpha = .87.

Data Analysis

To assess the unique contributions of peer (alcohol use and offers) and parent (rules and support) influences on youths’ alcohol use and related behaviors, sets of three-step hierarchical regressions were conducted for each of the four dependent variables – alcohol use, binge drinking, alcohol-related consequences and intentions to drink. In the first step, and owing to anticipated differences in outcomes by demographics, each model controlled for age, gender, ethnic-racial group, academic performance, enrollment in school, living arrangement, and assignment to study arm. Next, and in accord with developmental theory and the dominant role of peer influences in late adolescent youth, the two peer variables were entered. In the third and last step, two parent variables were added to the models. The parent variable, *rules against use*, was dichotomized into rules = 1, no rules = 0. Because measures of past-month drinking, binge drinking, and past-month alcohol related consequences were positively skewed, natural log transformations were used in regression analyses.

Results

Sample description

The study sample ($N = 400$) of urban youths was 54% female (Table 1). The average age at the sixth-annual follow-up was 17.3 years ($SD = 1.11$) with a range of 15 to 20 years. Most youths were Black (52%), 28% were Latino, 9% were White, and 11% were from other ethnic-racial groups. Most youths (69%) were enrolled in high school, vocational training, or a GED program, 18% attended college, and 13% were not in school. The majority of participants lived at home with their parents and approximately 20% of the sample lived alone, with a roommate, spouse, or other relative. Pretest comparability on demographics and outcome variables was assessed between the initial 513 youths and the 400 youths at this follow-up. One-way ANOVA and χ^2 tests failed to reveal differences between attriters on pretest variables.

Three-quarters of youths reported past-month alcohol use by their closest peers and almost 50% of youths had been offered alcohol by their peers in the past-month. Nearly one-half of youths reported past-month drinking (48%) and of those, 50% reported binge drinking. One in five youths experienced a negative consequence as a result of their drinking (e.g., passed out, arrested, physical altercation), and 63% of youths indicated that they had at least some intention to drink alcohol within the year. Prior to conducting our multivariate regression modeling, we computed Pearson correlations among our independent and dependent variables (Table 2). Significant associations were present between all variables except alcohol-related consequences and family support.

Alcohol use and binge drinking

Hierarchical modeling indicated that increased past-month alcohol use and binge drinking among youth were associated with increased levels of past-month peer alcohol use, $p < .001$, and peer alcohol offers, $p < .001$ (Table 3), controlling for age, gender, ethnic-racial group, academic performance, enrollment in school, living arrangement, and assignment to study arm. Peer use and alcohol offers remained significant, $p < .001$, after adjusting for parental influences. Past month peer alcohol use and alcohol offers explained 33% of the variance in youths' past month drinking and 20% of the variance in youths' past-month binge drinking.

Net the control and peer variables, parental rules against drinking were associated with less past-month alcohol use, $p < .01$, and fewer instances of past-month binge drinking, $p < .05$. Perceived family support was not associated with past-month alcohol use or binge drinking. Parent influences accounted for 1% of the variance in each model for past-month alcohol use and binge drinking.

Alcohol-related consequences and intentions

Increased past-month alcohol offers from peers was predictive of increased past-month alcohol-related consequences, $p < .001$, controlling for age, gender, ethnic-racial group, academic performance enrollment in school, living arrangement, and assignment to study arm (Table 4). The positive association between alcohol offers and alcohol-related consequences remained significant, $p < .001$, after adjusting for parent influences. Past-month alcohol use by peers was not associated with youths' alcohol-related consequences. Peer influences explained 11% of the variance in youths' alcohol-related consequences. Increased family support was associated with fewer alcohol-related consequences, $p < .05$, adjusting for our control and peer variables. Parental rules against alcohol use were not related to fewer alcohol-related consequences.

Increased peer alcohol use and alcohol offers were associated with youths' increased intentions to drink, $p < .001$, adjusting for age, gender, ethnic-racial group, academic performance, enrollment in school, living arrangement, and assignment to study arm and the parent variables (Table 4). Peer influences uniquely accounted for 37% of the variance in youths' intentions to drink. Parent influences were also significant predictors of youths' intentions to drink, after adjusting for the aforementioned control and peer variables. Parental rules against alcohol use and increased levels of perceived family support were predictive of decreased intentions to drink, $p < .01$, and explained 3% of the variance in youths' intentions.

Discussion

This study examined the relative influence of peer and parent variables on late adolescent drinking and drinking related behaviors among a sample of late adolescent urban youth. Not surprisingly, peer alcohol use and offers to drink were associated with increased alcohol use and binge drinking. This positive association with peer influences is similar to work by others on alcohol use among older adolescents (Borsari & Carey, 2001; Wood, Read, Palfai,

& Stevenson, 2001). Peer influences remained significant predictors of drinking after including parent variables in the model.

Parental rules against use were associated with less past-month alcohol use and binge drinking. Levels of family support were not associated with drinking or binge drinking. The stepwise inclusion of peer and parent variables were significant; however, whereas peer variables explained 33% and 29% of the variance in past-month drinking and binge drinking, respectively, parent variables explained 1% of the variance in drinking and binge drinking. Therefore, the influence of parental rules and family support was meaningful but relatively small compared to the considerable influence of peer use and peer alcohol offers.

Because minority youth, relative to their White counterparts, tend to disproportionately experience the negative consequences associated with drinking, we also examined the influence of peers and parents on alcohol-related consequences (e.g., arrests, fights, vandalism, and self-inflicted harm). Youths' alcohol-related consequences were not related to how much their peers drank but to how many times their peers offered them a drink. In the presence of peer influences, family support, but not family rules, was associated with alcohol-related consequences. Therefore, though increased peer alcohol use was predictive of increased drinking and binge drinking, and parental rules against use was associated with less drinking and binge drinking, neither variable was significantly associated with alcohol-related consequences. As with alcohol use and binge drinking, the influence of parent variables relative to peer variables on alcohol-related consequences was small, 1% and 11%, respectively.

Increases in peer use and peer offers were also associated with greater intentions to drink in the future. Peer influences remained significant after including parental rules against use and family support, both of which were associated with less intention to drink. Peer influences accounted for 30% of the variance in intentions to drink and parental influences accounted for 3% of the variance.

This study contributes to the literature on peer and parent influences in several ways. First, our data represent minority urban youth, a population frequently underrepresented in studies of adolescent alcohol use. Second, 75% of the sample was 17 years and older. Substantial literature exists on the role of parents among early adolescents and on the role of peers among late adolescents. To date, little research exists on the joint influence of peers and parents among late adolescent youth (Wood et al., 2004). Third, although such parenting behaviors as monitoring, attitudes, consistent discipline, and attachment have consistently been borne out in the data as protective against adolescent alcohol use (Bahr, Hoffman, & Yang, 2005; Barnes et al., 2006; Rodgers-Farmer 2000), little research has explored whether the presence of, and more specifically, youths knowledge of parental rules against alcohol use bears on drinking and related behaviors. Finally, the outcomes in this study were not confined to past-month alcohol use, but included binge drinking, alcohol-related consequences, and intentions to drink in the future. By including additional alcohol use dimensions, we saw that family support, though unrelated to instances of drinking, was related to fewer instances of alcohol-related consequences and decreased intentions to drink.

The study is not without limitations. The cross-sectional design precludes causal inference. As such, this study fails to tease apart whether the observed peer associations are the result of drinking peers socialize youths to drink, whether drinking youths seek out drinking peers (selection), or whether the relationship is reciprocal, as some data indicate (Cleveland & Wiebe, 2003; Dishion & Owen, 2002). Parental rules and levels of family support may also have reciprocal relationships with their child's alcohol use. Secondly, the self-report nature of the peer and parent variables may more accurately reflect youths' perceptions of their peers' drinking and alcohol offers and their perceptions of their parents' rules and levels of support. Therefore, use of self-report data on peers, parents, and youths own alcohol use may result in inflated covariance among variables.

Furthermore, several study findings warrant additional comment. Perceived increases in family support were associated with fewer instances of alcohol related consequences and intentions to drink, but not with monthly alcohol use or binge drinking. Perhaps youths who perceive higher levels of family support have temperaments that make them less inclined to engage in physical or verbal altercations. Peer offers to drink alcohol appear to have a stronger association with alcohol use and binge drinking than does peer alcohol use. Notwithstanding an insight into the theoretical explanation, the data suggest that as important as a positive peer group is the acquisition of effective refusal skills. Finally, the relative contribution of the parent variables, though statistically significant, is quite small (1% to 3% of the variance).

Absent from our study were data on family structure. The extent to which youths' response to parent questions represents a mother and father, a grandmother, an aunt, or other person is unknown. Therefore, we do not know if family support and rules operate similarly regardless of family structure. Because urban families are commonly extended to cope with limited resources and because extended family members often play a critical role in the lives of adolescents, future research should include such data (Kung & Farrell, 2000). Our study findings on the relative influence of peers and parents are also limited in their generalizability to similarly aged youth from urban settings.

Data from this study indicate that during late adolescence, peer influences are strong relative to parental influences. Despite powerful peer associations, parental rules against alcohol use were associated with lower rates of monthly drinking and binge drinking and decreased intentions to drink. Additionally, increased levels of perceived family support were related to fewer instances of alcohol-related consequences and decreased intentions to drink, above and beyond the influence of peers. Longitudinal research on late adolescent youth is needed to determine the lasting effects of parental influence, particularly as youths exit the home. Such studies would also benefit from data on family structure, a larger sample with minority youth in urban and rural settings, and data from multiple sources. The findings from this study indicate that parents may continue to play a role, albeit small, in reducing their child's drinking and drinking related behaviors even as young adulthood approaches.

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Table 1

Descriptive Sample Statistics (N = 400)

Variable	%	M	(SD)	Range
Age (years)		17.30	1.11	15 – 20
Gender				
Female	54			
Ethnic-racial group				
Black	52			
Latino	28			
White	9			
Other	11			
School status				
High school (includes vocational and GED)	69			
College (junior and four-year)	18			
Not in school	13			
Average letter grade ^a		2.40	0.75	1 – 5
Living arrangement				
With parents	82			
Alone, roommate, spouse, or relative	18			
Past-month peer alcohol use ^a		3.98	1.57	2 – 8
Any past-month peer use	75			
Past-month alcohol offers ^a		1.63	0.79	1 – 4
Any past-month alcohol offers	46			
Parent rules against use (Y/N)	78			
Family support ^a		5.43	2.36	3 – 12
Past-month alcohol use		2.18	4.61	0 – 45
Any past-month use	48			
Past-month binge drinking		0.73	2.47	0 – 28
Any past-month binge drinking	24			
Past-month alcohol-related consequences		1.03	3.21	0 – 34
Any past-month alcohol-related consequences	19			
Intentions to drink in the next year ^a		4.31	3.56	1 – 10
Any intention to drink the in next year	63			

Note. Past-month alcohol use, binge drinking, and alcohol-related consequences scores represent number of occasions.

^aLower scores are better.

Table 2

Pearson Correlations among Study Variables

Variable	1	2	3	4	5	6	7	8
1. Peer alcohol use	—							
2. Alcohol offers	.61**	—						
3. Parent rules	-.19**	-.22**	—					
4. Family support	.18**	.13**	-.25**	—				
5. Alcohol use	.45**	.50**	-.28**	.11*	—			
6. Binge drinking	.34**	.35**	-.23**	.12*	.70**	—		
7. Alcohol consequences	.19**	.21**	-.09	.21**	.17**	.21**	—	
8. Intentions to drink	.55**	.54**	-.29**	.23	.47**	.34**	.24**	—

Note. Parent rules (0 = no, 1 = yes); lower family support scores are better.

* $p < .05$.

** $p < .01$.

Table 3
Standardized Hierarchical Regression Analyses for Past-Month Alcohol Use and Binge Drinking

Predictors	Alcohol Use			Binge Drinking		
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	β	SE	β	SE	β	SE
Peer Variables						
Alcohol use	.27***	.05	.26***	.05	.23***	.05
Offers to use	.40***	.05	.39***	.05	.30***	.05
Parent Variables						
Rules against use			-.11**	.04	-.10*	.05
Family support			.03	.04	.02	.04
R^2		.46		.48		.34
R^2		.33		.01		.20
F		112.79****		4.40*		55.63****
						3.01*

Note. $N = 383$. R^2 for each Model 1 represents variance explained after adjusting for age, gender, ethnic-racial group, academic performance, enrollment in school, living arrangement, and assignment to study arm. Rules against use (0 = no, 1 = yes); lower family support scores are better.

* $p < .05$.

** $p < .01$.

*** $p < .001$.

Table 4
Standardized Hierarchical Regression Analyses for Alcohol-Related Consequences and Intentions to Drink

Predictors	Alcohol-Related Consequences				Intentions to Drink			
	Model 1		Model 2		Model 1		Model 2	
	β	SE	β	SE	β	SE	β	SE
Peer Variables								
Alcohol use	.11	.06	.10	.06	.36***	.05	.31***	.05
Offers to use	.28***	.06	.28***	.06	.31***	.05	.29***	.05
Parent Variables								
Rules against use			.01	.05			-.13**	.04
Family support			.12*	.05			.12**	.04
R^2		.13		.14		.37		.40
R^2		.11		.01		.30		.03
F		24.09***		2.67		86.72***		10.64***

Note. $N = 383$. R^2 for each Model 1 represents variance explained after adjusting for age, gender, ethnic-racial group, academic performance, enrollment in school, living arrangement, and assignment to study arm. Rules against use (0 = no, 1 = yes); lower family support scores are better.

* $p < .05$.

** $p < .01$.

*** $p < .001$