

The 'Reign of Error' in Adolescents' Perceptions of Peer Drinking Norms in US Secondary Schools

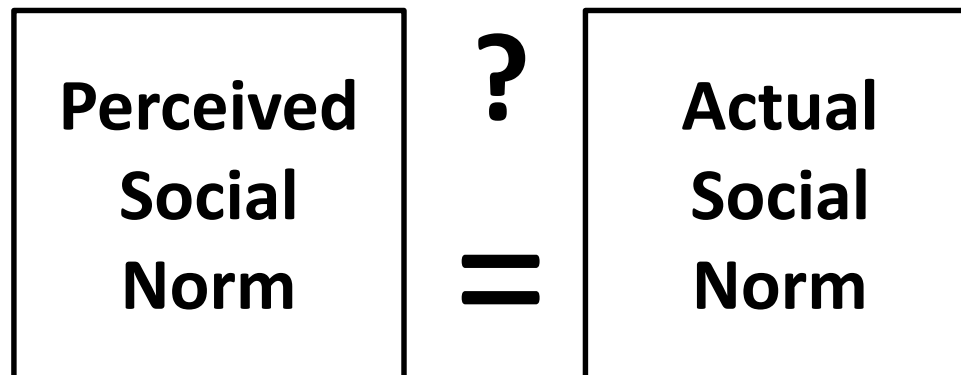
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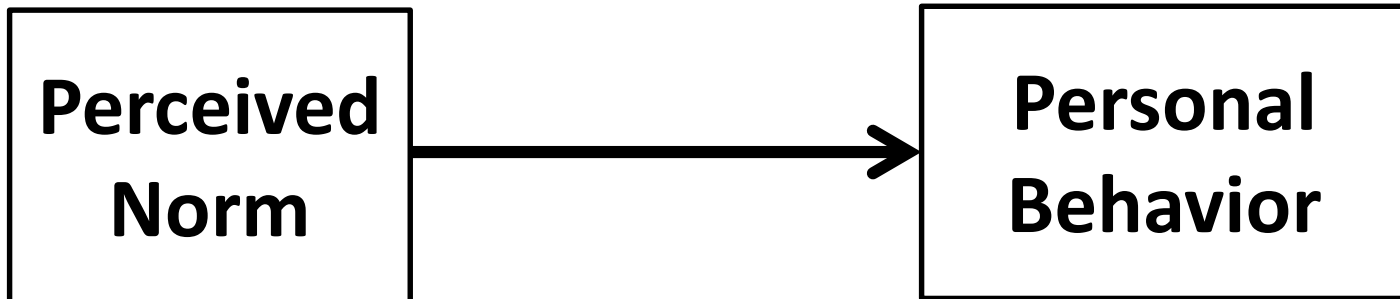
Conceptual Framework

Peer Norms are the behaviors and attitudes engaged in or held by the majority of persons within a defined group of peers



**‘What is perceived as real
is real in its consequences’**

Thomas & Thomas, 1928



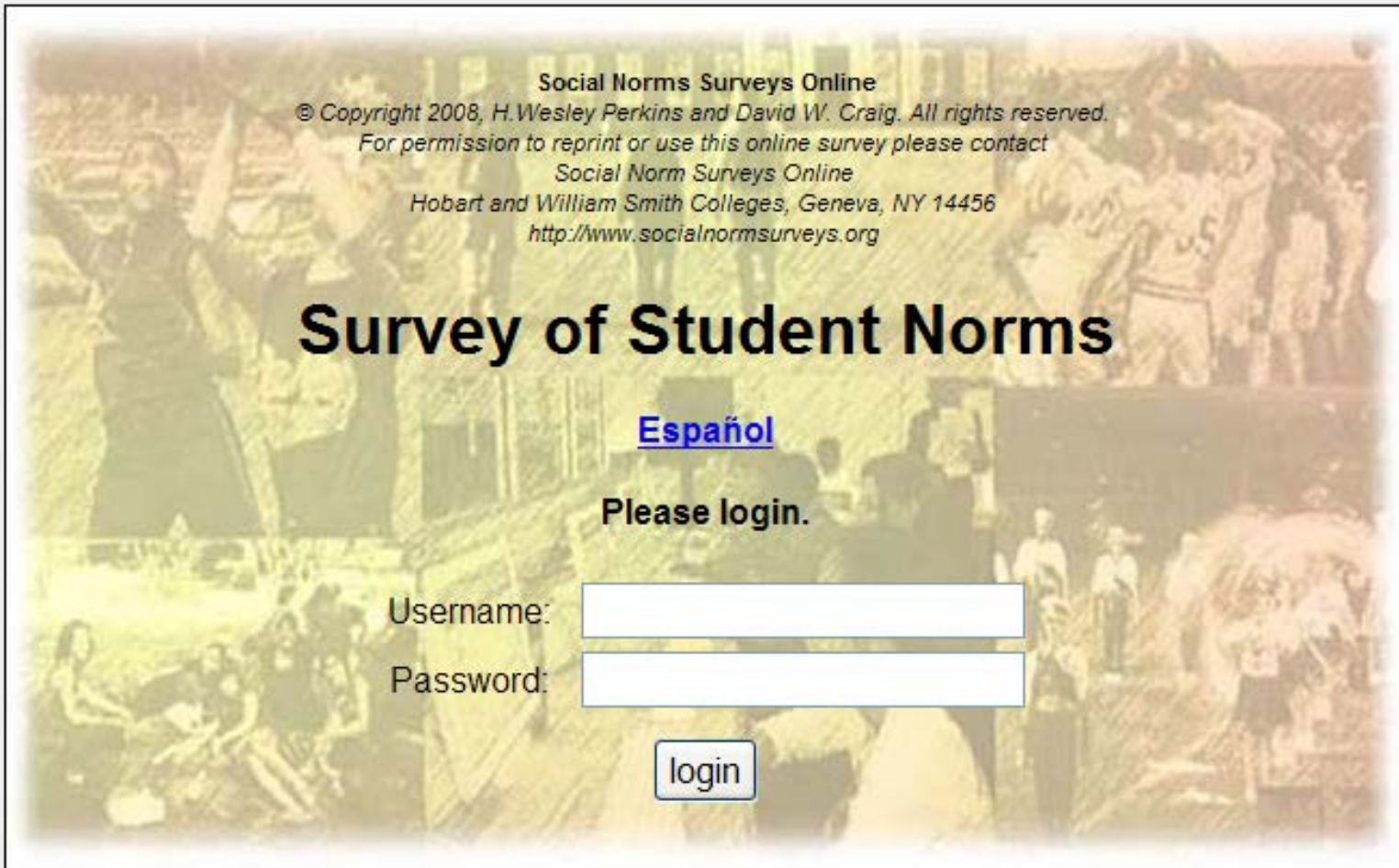
Research Questions

1. To what extent are peer norms about alcohol consumption misperceived, and does misperception vary across student and school characteristics?

Research Questions

2. To what extent is what a student perceives to be normative alcohol consumption among peers associated with personal alcohol consumption?

Web-based Survey Instrument



Social Norms Surveys Online
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Social Norm Surveys Online
Hobart and William Smith Colleges, Geneva, NY 14456
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Survey of Student Norms

[Español](#)

Please login.

Username:

Password:

Participants

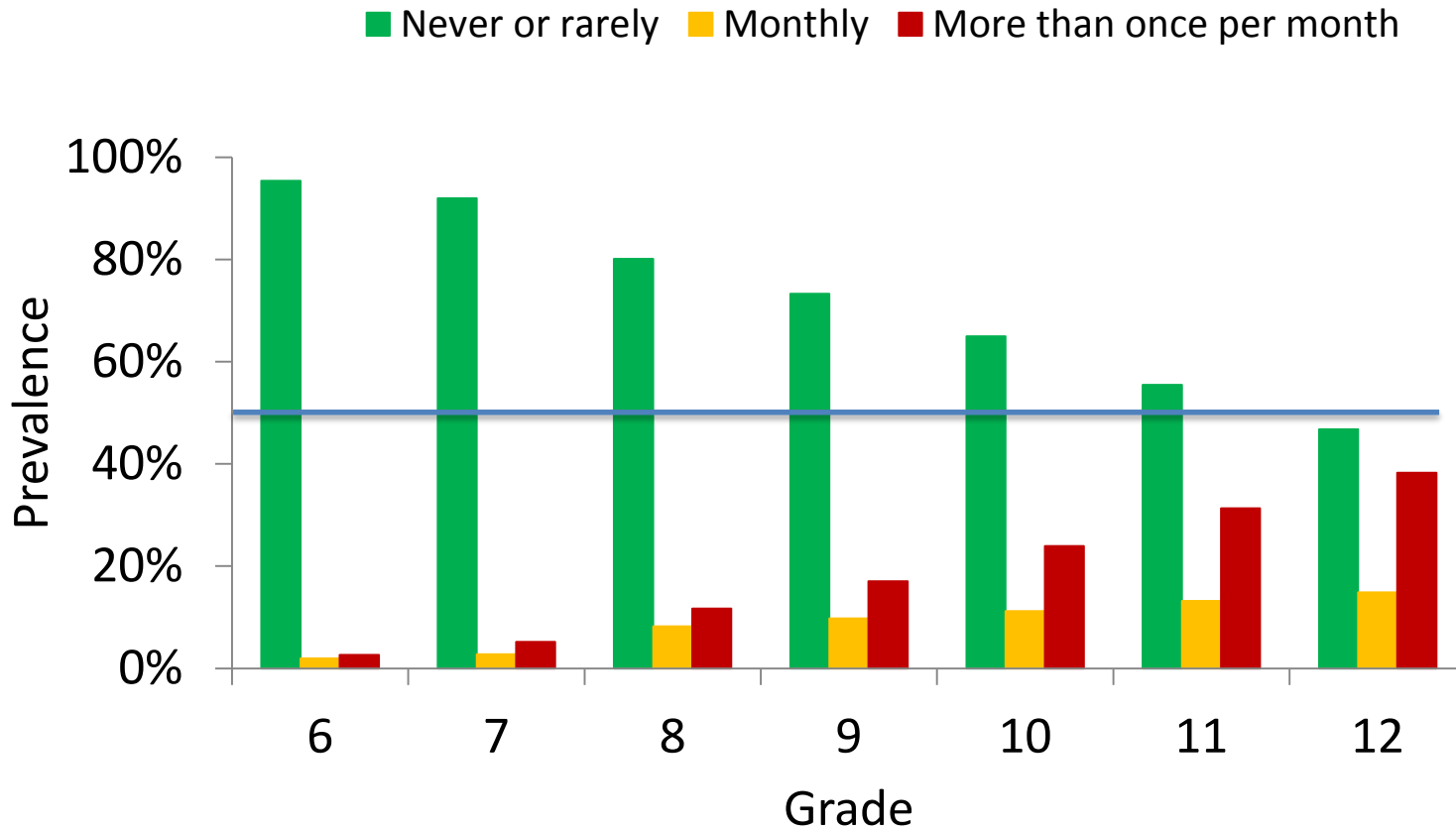
- 28,070 students in grades 6 through 12 across 64 schools in 11 states (AZ, CO, ID, IN, IA, MA, ME, MT, NY, NJ, WA)
- Response rate = 79% (min = 50%)
- 23 Middle schools
- 1 Intermediate high school
- 38 High Schools
- 2 K-12 schools

Diversity in Schools

School-Level Demographics	N of Schools		
White: <50% (min. of 28%)	8		
White: 50% - 89%	29	% surveyed in 1999-2004	49%
White: 90%+	23	% surveyed in 2005-2010	38%
		% surveyed in 2011-2017	14%
Hispanic <10%	36		
Hispanic: 10% - 40%	20		
Hispanic: >40%	4		
Black: < 5%	50		
Black: 5% - 25%	6		
Black: > 25%	4		
Free school lunch: < 10%	13		
Free school lunch: 10% - 25%	11		
Free school lunch: 26% - 50%	26		
Free school lunch: >50%	5		
Public	58		
Private / parochial	6		
Urban/Suburban	22		
Rural	42		
		Grade Distribution	N of Students
		6	2264
		7	2535
		8	2293
		9	6538
		10	5707
		11	4867
		12	3863
		Total	28070

Actual Norms

Prevalence of Alcohol Use Frequency (N=27,359)

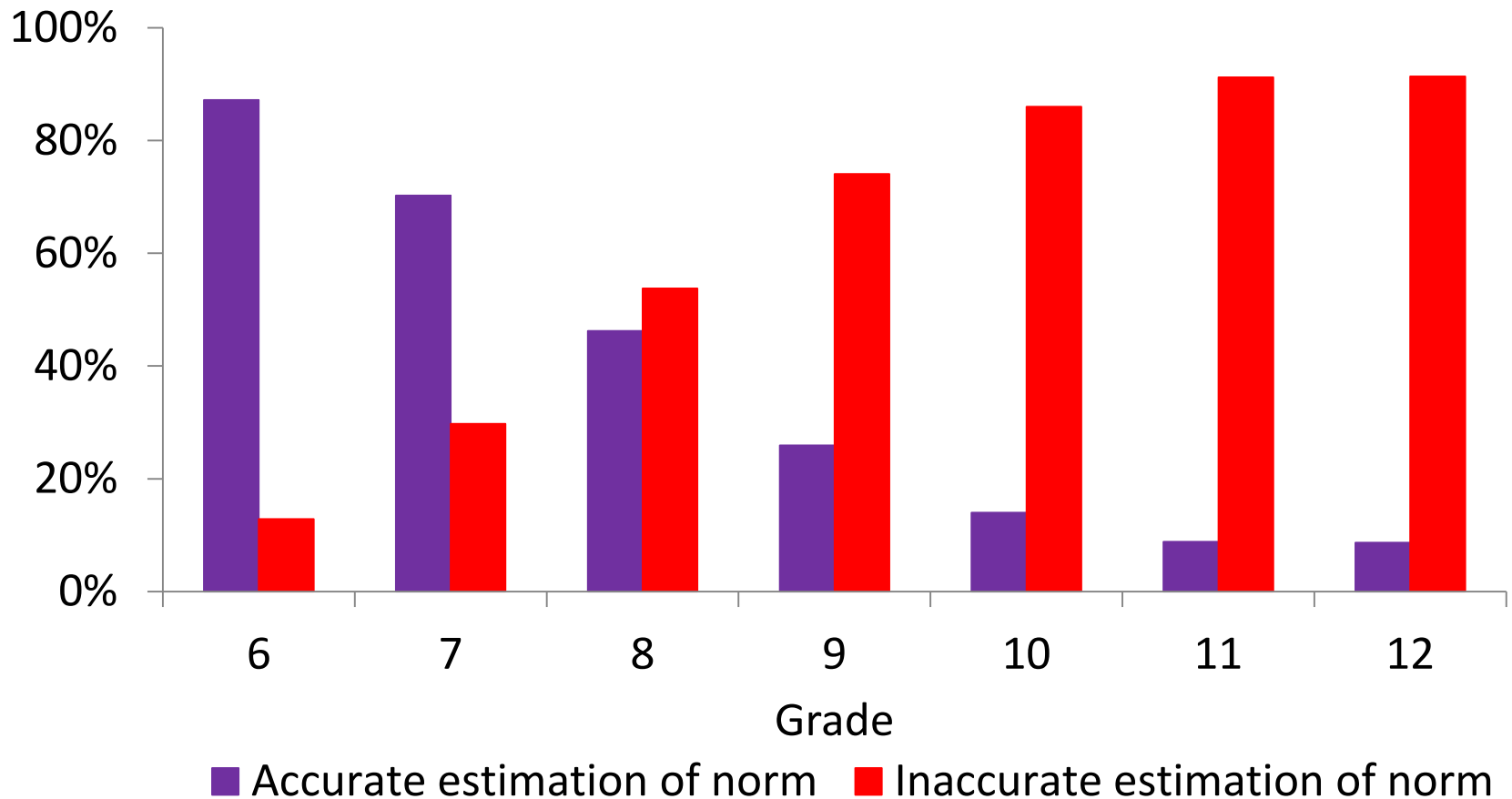


Number of Alcoholic Drinks Typically Consumed at Parties and Social Occasions by Grade

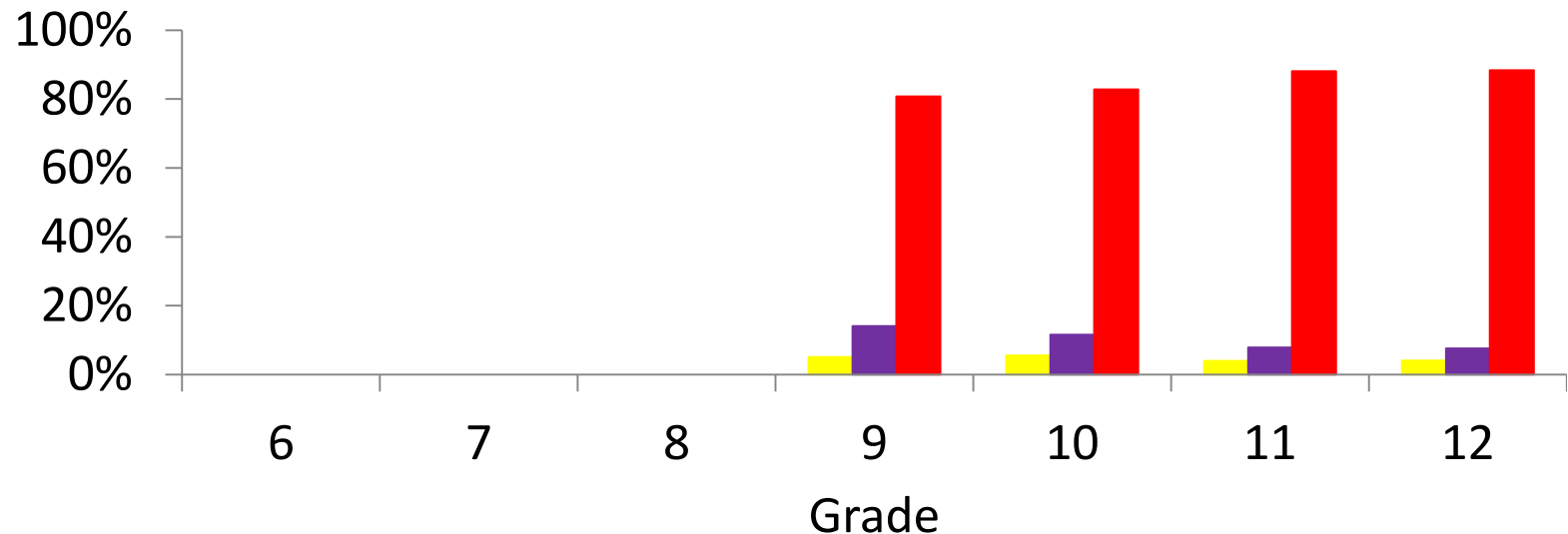
Grade	Median Drinks	Mean Drinks	SD	N of students
6	0	.26	1.0	2186
7	0	.46	1.3	2426
8	0	1.0	1.9	2228
9	0	1.3	2.1	6384
10	1	1.9	2.4	5557
11	1	2.5	2.7	4745
12	3	2.9	2.7	3727

Misperceived Norms

Prevalence of Accurate and Inaccurate Estimation of Frequency Norm where Grade Cohort Norm is Never or Rare Alcohol Use by Grade



Prevalence of Accurate and Inaccurate Estimation of Frequency Norm where Grade Cohort Norm is Monthly Alcohol Use by Grade



- Inaccurate underestimation of norm
- Accurate estimation of norm
- Inaccurate overestimation of norm

Misperception of Grade Cohort Quantity Norm for Drinks at Parties/Social Occasions by Actual Norm

Actual grade cohort norm for number of drinks consumed	% under-estimating norm (mean # of drinks in error)	% accurately estimating norm	% over-estimating norm (mean # of drinks in error)	N of students
0	-	20	80 (3.0)	14,906
1.0	3.9 (1.0)	8.4	88 (3.4)	4,946
1.5	2.7 (1.5)	19*	78 (3.5)	111
2.0	6.7 (1.4)	10	83 (3.0)	3,752
3.0	9.8 (1.5)	14	76 (2.6)	2,137
3.5	7.7 (1.8)	30*	62 (2.9)	156
4.0	17 (1.7)	14	69 (2.3)	527
4.5	27 (2.1)	30*	43 (2.4)	63
5.0	28 (1.9)	17	55 (1.7)	286
All cohorts	3.2 (1.4)	16	81 (3.0)	26,844

*Perceptions of the norm are reported as whole numbers. For cohort medians occurring exactly between two whole drink numbers, a perceived estimate of the whole number above or below the value was classified as accurate.

Misperception of Grade Cohort Quantity Norm for Drinks at Parties/Social Occasions by Time Period

Time Period	% under- estimating norm (mean # of drinks in error)	% accurately estimating norm	% over- estimating norm (mean # of drinks in error)
1999-2004	3.9 (1.5)	18	79 (2.8)
2005-2010	2.7 (1.3)	14	83 (3.2)
2011-2017	2.0 (1.4)	17	81 (3.3)

Overestimates of Grade Cohort Quantity Norm for Drinks at Parties/Social Occasions by Race/Ethnicity

Race/ Ethnicity	% over-estimating quantity consumption norm among same- grade same-school peers	Mean number of drinks overestimated
White	83%	3.3
Black	82%	3.6
Hispanic / Latino	78%	3.2
Asian	74%	2.9
American Indian /Alaskan Native	79%	3.4
Other	71%	3.1

Overestimates of Grade Cohort Quantity Norm for Drinks at Parties/Social Occasions by Free School Lunch %

Free School Lunch %	% over-estimating quantity consumption norm among same-grade same-school peers	Mean number of drinks overestimated
0 to 9.9	82%	3.2
10 to 24.9	80%	3.0
25 and over	78%	3.0

Predicting Personal Behavior

Number of Alcoholic Drinks Consumed at Parties or Social Occasions is Associated with Perceived Alcohol Consumption and Actual Median Alcohol Consumption Among Same-Grade Same-School Students

	Males	
	b	s.e.
Perceived number of alcoholic drinks typically consumed at parties or social occasions among same-grade peers	0.62 ^{***}	0.10
Median number of alcoholic drinks actually consumed at parties or social occasions among same-grade peers	0.23 ^{***}	0.03
Age	0.05 ^{**}	0.02
Black (vs. White)	-0.16	0.13
Hispanic/Latino (vs. White)	0.17	0.11
Asian (vs. White)	-0.21	0.13
Other (vs. White)	-0.10	0.12
Not in a Club (vs. In Club)	-0.33 ^{***}	0.05
Has a Job (vs. No Job)	0.34 ^{***}	0.04

Number of Alcoholic Drinks Consumed at Parties or Social Occasions is Associated with Perceived Alcohol Consumption and Actual Median Alcohol Consumption Among Same-Grade Same-School Students

	Females	
	b	se
Perceived number of alcoholic drinks typically consumed at parties or social occasions among same-grade peers	0.53 ^{***}	0.01
Median number of alcoholic drinks actually consumed at parties or social occasions among same-grade peers	0.17 ^{***}	0.02
Age	0.03	0.02
Black (vs. White)	0.03	0.15
Hispanic/Latino (vs. White)	0.12	0.09
Asian (vs. White)	-0.23 [*]	0.11
Other (vs. White)	-0.01	0.11
Not in a Club (vs. In Club)	-0.30 ^{***}	0.04
Has a Job (vs. No Job)	0.31 ^{***}	0.13

Key Findings – ‘Reign of Error’

1. Pervasive misperception of peer norms
2. Perceived peer norms strongly predicted personal behavior

Implications

- Opportunity to correct misperceptions
 - Social norms intervention to share information about actual norms via peer leaders, text messages, various social media platforms, etc.
- May lead to behavioral change
- May lead those who are already part the norm to be more vocal about their positive behavior as models for peer behavior

Abstract

Past work on social norms and alcohol use among college students has found pervasive overestimations of peer drinking norms and that the frequency and quantity a student believes peers to drink predicts personal consumption. Few studies have examined whether similar phenomena are found among middle school and high school students. Yet, students' perceptions of peer norms within the school context may be an important determinant of alcohol use as youth look to peers for social cues on how to behave during an important developmental period. This study distinguishes between perceived and actual peer norms for alcohol use among 28,070 students in grades 6-12 across 64 diverse schools in 11 states from 1999 to 2017. Data were collected via anonymous online surveys (with an average response rate of 79%) on students' perceptions of the most common drinking behaviors among same-grade same-school peers as well as on personal drinking behaviors. Within 83% of grade-school cohorts (182 out of 220), the majority of students rarely consumed alcohol (never or only 1-2x per year). This peer norm of abstinence/rare use was misperceived, however, by two-thirds of students in these grade cohorts who thought that peers typically consumed alcohol more frequently. Further, one-third of students in these cohorts erroneously believed most peers drank weekly or more often. In the other 38 cohorts where monthly alcohol use was the actual norm, peer norm overestimations were still equally pervasive. Disparities between actual and perceived norms for other consumption measures were found across all cohorts and were pervasive across individual and school characteristics. Misperceiving frequent drinking and drinking large quantities as peer norms strongly predicted personal drinking. Researchers should test interventions to reduce misperceptions among youth, and presumably reduce actual alcohol use. Practitioners could begin to explore comprehensive ways to promote awareness of positive actual norms among students.