

Association Between Drinking Contexts and Alcohol-Related Problems Among Whites and Hispanic Adults in California

BACKGROUND & OBJECTIVE

- The effects of contexts on drinking patterns and associated consequences arise from the interactions between individual characteristics, patterns of substance use, and usage contexts (Gruenewald et al., 2013; Gruenewald et al., 2018).
- For example, alcohol consumption in bars has been linked to an increased likelihood of aggression, particularly in crowded venues featuring dancing and loud music (Graham et al., 2006; Campbell et al., 2009; Morrison et al., 2015).
- Characteristics of bar patrons, such as male gender, younger age, high impulsivity, and alcohol dependence, have also been associated with this heightened probability of aggressive behavior (Leonard et al., 2003; Gruenewald et al., 2014; Gruenewald, 2007). Drinking establishments may attract such clientele due to lax behavioral policies and features appealing to specific patrons, such as lower drink prices, loud music, or larger crowds.
- Furthermore, drinking practices, such as round-buying rituals, can increase alcohol consumption, thereby potentially escalating aggressive behavior (Riazi and MacLean, 2016).
- The current study focuses on Whites and Hispanics, who collectively comprise a substantial proportion of California's population (76%; Whites, 37%; Hispanics, 39%) (U.S. Census Bureau, 2019).
- 2021–2023 data from the National Survey on Drug Use and Health (NSDUH) indicate that Whites have higher rates of alcohol use disorder compared to Hispanics (Substance Abuse and Mental Health Services Administration, 2024).
- Whites also report elevated rates of past-month alcohol use, and heavy alcohol use (Mitchell et al., 2020; Substance Abuse and Mental Health Services Administration, 2024).
- These observations inform the expectations for the present analysis, which aims to identify statistically significant associations between drinking frequency, drinking volume, and selected associated consequences across various contexts.

METHODS

- Data are from a household survey of 1069 18 to 49 year old residents of 40 California cities purposively selected for the study.
- Respondents were recruited from randomly sampled households, and survey data were collected online.
- Analyses included crosstabulations and fitting a heteroskedastic ordinal generalized linear model for count responses to problems data.
- Problems were grouped into three areas: neglected responsibilities, physiological problems, and aggression.

RESULTS

Table 1: Ordinal generalized linear regression model of alcohol-related problems on frequency and volumes of drinking, and sociodemographic variables among past year drinkers. N=803.

Variable	Neglect responsibilities OR (95% CI)	Physiological OR (95% CI)	Aggression OR (95% CI)
Context frequency			
Home alone or with family	1.00 (1.00,1.01)	1.00 (1.00,1.00)*	1.00 (1.00,1.01)
Bar, club, or pub	1.00 (0.99,1.02)	1.01 (1.00,1.02)	1.01 (1.00,1.03)*
Public place	1.02 (1.01,1.03)***	0.99 (0.94,1.04)	1.01 (1.00,1.02)
Party at own home	0.99 (0.97,1.00)	1.00 (0.98,1.01)	0.98 (0.96,1.00)*
Context continued volume			
Home alone or with family	1.27 (1.05,1.54)*	1.12 (1.01,1.24)*	1.33 (1.05,1.70)*
Bar, club, or pub	1.06 (0.85,1.32)	1.03 (0.88,1.2)	0.93 (0.73,1.19)
Public place	0.88 (0.65,1.2)	1.04 (0.82,1.31)	1.12 (0.80,1.58)
Party at own home	1.50 (1.18,1.91)**	1.09 (0.94,1.27)	1.06 (0.81,1.4)
Sociodemographic			
Hispanic (ref: Hispanic)			
White	0.71 (0.39,1.3)	0.93 (0.67,1.29)	0.27 (0.11,0.64)**
Education (ref: <High school)			
High school	9.73 (1.15,82.33)*	0.74 (0.28,1.97)	2.11 (0.45,9.88)
Some college or technical	12.03 (1.49,97.21)*	0.76 (0.3,1.92)	1.74 (0.37,8.13)
College, technical graduate	7.03 (0.86,57.83)	0.82 (0.33,2.05)	1.46 (0.27,7.89)
Graduate school	4.96 (0.57,43.41)	0.46 (0.18,1.21)	0.53 (0.11,2.63)
Religion (ref: Protestant)			
Catholic	1.36 (0.65,2.84)	1.40 (0.86,2.29)	1.62 (0.67,3.89)
Other religion	6.4 (1.88, 21.75)**	2.8 (1.12,6.99)*	9.04 (1.69,48.21)*
No preference	1.00 (0.55,1.82)	1.14 (0.76, 1.69)	1.64 (0.78,3.42)
Ever had drug problem			
Yes	2.26 (1.47,3.49)***	1.42 (1.05,1.93)*	2.45 (1.44,4.15)**

The analysis also controlled the effects of frequency and volume of drinking at home when friends visit, restaurants, getting together at friends and relatives' home, gender, age, income, birthplace, and employment status, none of which had a statistically significant association with the outcomes. *p>0.05 ** p>.01 ***p>.001

- The 12-month prevalence of problem groups (not tabled) by ethnicity was: neglect responsibilities Whites, 11.6%, Hispanics, 16.8%, p<.02; physiological problems: Whites, 31.3%, Hispanics 34.1%, p<ns; aggression: Whites, 11.1%, Hispanics, 16.8%, p<.01: Whites.
- In controlled analyses, Whites had lower odds than Hispanics of reporting an aggression related problem.
- The pattern of statistically significant associations between frequency and volume of drinking in different contexts varied across problem types. Frequency of drinking at home alone or with family was positively associated with physiological problems. Frequency of drinking at bars/pubs was positively associated with aggression. Frequency of drinking at a public place was positively associated with neglect of responsibilities. Frequency of drinking at a party at own home was associated with aggression.
- The volume of drinking at home alone or with family was positively associated with all three problem areas, and this was also true for a history of drug problems, and preference for a non-Catholic or non-Protestant religion.

CONCLUSION

- The association between drinking contexts and problems varied across contexts, suggesting potential interactions between context, drinkers' characteristics, and problem type.
- The volume of drinking at drinkers' own homes was associated with all three groups of problems investigated. Drinking at home is less expensive and is often associated with "preloading," followed by drinking in other contexts.
- These findings provide further insights into context-specific risks for alcohol problems among adults, which can help to inform prevention strategies.