



Correlates Associated with Past 30 Day Binge Drinking in a Predominantly Mexican American Young Adult Sample

Ileana S. Acosta, Jennifer L. Kim, Illiana C. Medina, Maria I. Gallardo, Jose A. Cabriaes, & Theodore V. Cooper
The University of Texas at El Paso



Introduction

Background

- Alcohol and tobacco use among young adults remains a significant health issue (CDC, 2016; NIH, 2016).
- Among young adults (e.g., 18-22), the rates of binge drinking in the past month in 2014 were 37.9% for college students, and 33.5% for same age non college attending peers (NIH, 2016).
- While Whites have the highest rate of high-risk drinking behavior as a whole (Substance Abuse and Mental Health Services Association [SAMHSA], 2008), a higher percentage of Hispanic youth specifically, report having consumed alcohol in their lifetime than do White or African American youth (Kng & Vidourek, 2010)
- Bennett, Miller, and Woodall (1999) found that Hispanic college students had higher rates of binge drinking than those of any other minority population.
- However, few studies have assessed the association between a range of psychosocial and psychographic constructs and binge drinking, especially in a young Hispanic sample.

Aim

This study aimed to assess potential correlates of past 30 day binge drinking in a young (18-30 years) Hispanic sample that is predominantly Mexican American.

Method

Participants

The present sample ($N = 725$) represents a subset of Hispanic participants from a larger dataset ($N = 1013$) collected via an online survey. See Table 2 and 3 for further participant characteristics.

Measures

Sociodemographics. This questionnaire collected typical sociodemographic information (e.g., age, sex, education).

Tobacco use history. This survey assessed past and current tobacco use (e.g., intermittent vs. daily) with a focus on past 30-day use. This survey has been used in previous studies on the U.S./Mexico border (e.g., Cooper et al., 2011).

Daily Drinking Questionnaire (DDQ). The DDQ assessed past 90 days drinking behavior (e.g., frequency/rate, time spent drinking; Collins, Parks, & Marlatt, 1985).

Brief Sensation Seeking Scale (BSSS-8). This 8-item Likert scale measures sensation seeking in adolescents and young adults (Hoyle, Stephenson, Palmgreen, Lorch, & Donohew, 2002).

Stressors/worries. This 12-item Likert type scale assessed common stressors/worries (e.g., school grades) that may be experienced by young adults in the past six months. This survey has been used previously in similar studies (Berg et al., 2011).

Social Activities. This 7-item Likert type scale assessed past six month engagement in social activities (Berg et al., 2011). This survey has been used in previous studies on the U.S. Mexico border (e.g., Cabriaes et al., 2016)

Acculturation Scale for Mexican Americans-II (ARSMA-II). This 30-item two subset scale (Anglo Orientation Subscale {AOS} and a Mexican Orientation Subscale {MOS}), assessed levels of acculturation and enculturation using an orthogonal or multidimensional approach (Cuellar et al., 1995)

Note: Cronbach's alpha ranging from .65 to .91 were observed across the measures used in this study, indicating moderate to satisfactory levels of reliability.

Methods cont'

Procedure

University IRB approval was obtained prior to study implementation. Participants were recruited through traditional (e.g., traditional radio, flyers) and digital (e.g., social media, bulletin boards) methods and incentivized by entering a gift card drawing at the end of the study (chance to win one of twenty \$100 gift cards). Participants read and electronically signed the consent form before proceeding with the online survey. Information collected in the consent form was not linked to survey responses.

Approach to Analyses

A logistic regression (0 = no, 1 = yes; Nagelkerke $R^2 = 23.3\%$) assessed sociodemographic, and psychosocial/health correlates of binge drinking. Binge drinking was defined as any past 30 day use .

Results

About half of participants (47.7%) reported drinking any alcohol in the past 90 days, 44.1% reported lifetime binge drinking, and 25% reported past 30 day binge drinking. A logistic regression (0 = no, 1 = yes; Nagelkerke $R^2 = 23.3\%$) assessed sociodemographic, and psychosocial/health correlates of past 30 day binge drinking. Correlates associated with higher odds of past 30 day binge drinking were: sensation seeking scores (OR = 1.92, CI [1.36, 2.70]), and smoking (≥ 1 cigarette in past month; OR = 4.05, CI [2.32, 7.08]. Greater adherence to mainstream U.S. culture (via Bidimensional Acculturation Scale for Hispanics) was marginally associated with lower odds (OR = 0.47, CI [0.22, 1.01]) of past 30 day binge drinking.

Table 1: Summary of logistic regression predicting binge drinking

	SE	OR	CI(lower)	CI(upper)
Sensation seeking	0.11	1.95	1.57	2.42
Acculturation	0.07	0.93	0.81	1.06
Smoking		4.05	2.32	7.08

Notes. **Bold** indicates $p < .05$. Nagelkerke $R^2 = .193$.

Table 2: Continuous characteristics

	Range	M	SD
Age	18-30	21.40	2.96
Stress	1-4	2.31	0.52
Social activities	1-4	2.35	0.63
Social support	1-7	5.48	1.24
Coping style	1-5	2.24	0.48
Sensation seeking	1-5	3.61	0.76

Table 3: Categorical characteristics

	Percent
Female	71.9
Mexican American	60.0
Education	
< High school	2.20
High school/GED	14.30
Some college	67.70
College graduate	10.10
Graduate coursework	5.70

Discussion

The findings that sensation seeking and smoking are associated with binge drinking are consistent with hypotheses and multiple studies suggesting polysubstance use in Hispanic young adults (Falk et al., 2016; Chen & Dufour, 2013; Vanderveen et al., 2013). Convergence theory and studies of acculturation typically suggest acculturation to U.S. culture by Hispanic young adults is associated with higher rates of past 30 day binge drinking (Zamboanga, 2006). However, our findings reported marginally lower rates of binge drinking, the greater the acculturation scores. This inconsistent finding suggests that social/cultural factors (e.g. celebratory functions, drinking age) may differ on the U.S. / Mexico border. Also, most studies of binge drinking in young adult samples assess college students, while the present study recruited participants from the community who were not exclusively attending college. It may be that college culture promotes binge drinking more or in a different manner than does acculturation. Finally, other cultural constructs, such as perceived discrimination, may influence binge drinking to a greater extent and/or mediate or moderate the acculturation/binge drinking relationship.

Strengths and Limitations

The present study does not establish a temporal relationship between binge drinking and the its correlates. A prospective study is warranted to further explore this relationship. An additional limitation of this study is its generalizability to the young adult population of the U.S. because of the predominantly Mexican American sample. However, the sample serves as a significant strength in that few studies have assessed these relationships in Hispanics.

Future Directions

Future Hispanic young adult binge drinking studies should continue to explore psychosocial and psychographic variables, and perhaps include other culturally-based constructs, such as micro-aggressions and perceived discrimination in community based samples prospectively.

References

- Berg, C. J., Ling, P. M., Guo, H., Klatt, C. M., Thomas, J. L., Ahluwalia, J. S., & An, L. C. (2011). Using market research to understand health behaviors among college students. *College Student Journal*, 45, 726-737. Retrieved from <http://www.projectinnovation.biz/cs.html>
- Cabriaes, J. A., Cooper, T. V., Hernandez, N., & Law, J. (2016). Psychographic characteristics, tobacco, and alcohol use in a sample of young adults on the U.S./Mexico border. *Addictive Behaviors*, 63, 12-18. doi:10.1016/j.addbeh.2016.06.028
- Center for Disease Control. Current Cigarette Smoking Among Adults in the United States. (2016). Retrieved October 05, 2016, from http://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm
- Collins, R. L., Parks, G. A., & Marlatt, G. A. (1985). Social determinants of alcohol consumption: The effects of social interaction and model status on the self administration of alcohol. *Journal of Consulting and Clinical Psychology*, 53, 189-200. doi:10.1037/0022-006X.53.2.189.
- Cooper, T. V., Rodriguez de Ybarra, D., Charter, J. E., & Blow, J. (2011). Characteristics associated with smoking in a Hispanic college student sample. *Addictive Behaviors*, 36, 1329-1332. doi:10.1016/j.addbeh.2011.07.021
- Cuellar, I., Arnold, B., & Maldonado, R. (1995). Acculturation rating scale for Mexican Americans-II: A revision of the original ARSMA scale. *Hispanic journal of behavioral sciences*, 17(3), 275-304.
- Falk, D., Yi, H., & Hiller-Sturmhöfel, S. (2006). An Epidemiologic Analysis of Co-Occurring Alcohol and Drug Use and Disorders. *Alcohol Research and Health*, 29, 162-171
- Hoyle, R. H., Stephenson, M. T., Palmgreen, P., Lorch, E. P., & Donohew, R., L. (2002). Reliability and validity of a brief measure of sensation seeking. *Personality and Individual Differences*, 32, 401-414. doi:10.1016/S0191-8869(01)00032-0
- Latvala, A., Rose, R. J., Pulkkinen, L., Dick, D. M., Korhonen, T., & Kaprio, J. (2014). Drinking, smoking, and educational achievement: Cross-lagged associations from adolescence to adulthood. *Drug and Alcohol Dependence*, 137, 106-113. doi:10.1016/j.drugalcdep.2014.01.016
- National Institute on Alcohol Abuse and Alcoholism (NIAAA). Alcohol Facts and Statistics. (n.d.). Retrieved from <https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/alcohol-facts-and-statistics>
- Substance Abuse and Mental Health Services Association. (2015). Topics: Specific populations: Racial and ethnic minority populations. Retrieved from <http://www.samhsa.gov/topics/specific-populations/racial-ethnic-minority>
- Weitzman, E. R. & Chen, Y. (2005). The co-occurrence of smoking and drinking among young adults in college: National survey results from the United States. *Drug and Alcohol Dependence*, 80, 377-386. doi:10.1016/j.drugalcdep.2005.05.008
- Zimet, G., Dahlem, N., Zimet, S., & Farley, G. (1988). The multidimensional scale of perceived social support. *Journal of Personality Assessment*, 52,30-41. doi:10.1207/s15327752jpa5201_2
- Zamboanga, B. L., Raffaelli, M., & Horton, N. J. (2006). Acculturation status and heavy alcohol use among Mexican American college students: Investigating the moderating role of gender. *Addictive behaviors*, 31(12), 2188-2198.



Acknowledgements
This study was funded by A
Smoke Free Paso Del Norte