



# Cultural constructs associated with smoking and drinking in Hispanic college students

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## Background

- Alcohol and tobacco is commonly used among college students, there has been an increase in drinking rates observed along the U.S./Mexico border (Venegas et al., 2012).
- Binge drinking prevalence among college students (18-22 years) in the past month were 37.9% compared to the same age non-college students (32.6%) in 2015 (NIAA, 2018).
- Studies have found that young adults are prone to alcohol use disorder, nicotine dependence, and co-use dependence (NIAA, 2018).
- Perceived discrimination has been associated with higher drinking rates, as well as the use of other substances in the past 12 months among Hispanics and other minority groups (Cheng & Mallinckrodt, 2015).
- Hispanic adolescents who do not identify with their heritage culture, but identify with U.S. culture, are at higher risk of using substances (Unger, 2015).
- However, there have been few studies assessing cultural constructs and potential correlates of substance use such as binge drinking and smoking in a predominantly Hispanic young adult college sample (18-30 years).

## Objective

The aim of the study was to assess current smoking and weekend drinking, as well as potential cultural construct correlates of use behaviors in a Hispanic student sample.

## Methods

### Participants

- The present sample ( $n = 295$ ) represents a subset of Hispanic college students (72.2% female;  $Mage = 20.13$ ;  $SD = 3.92$ ) from a larger data set ( $N=345$ ) collected via online survey.

### Measures

- Sociodemographics.** This questionnaire collected typical sociodemographic information (e.g., age, sex, education).
- 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).
- Attitudinal Familism Scale (AFS).** This 18-item four subset scale measures beliefs and attitudes toward family members (Esparza & Sanchez, 2008).
- Latino/a Values Scale (LVS).** This 35-item four subset scale measures an individual's adherence to Latino/a cultural values (Kim et al., 2009).
- Multidimensional Fatalism Questionnaire (MFQ).** This questionnaire assessed fatalism, the belief that outcomes were determined by fate, and an external locus of control (Esparza, 2005).
- Revised Racial and Ethnic Microaggression Scale (R-REMS).** This 28-item five subset scale measures second-class citizen and assumptions of criminality, assumptions of inferiority, assumptions of similarities, microinvalidations, and media microaggressions (Nadal, 2011).
- Short Acculturation Scale for Hispanics (SASH).** This questionnaire assessed the level of acculturation to U.S. culture (Marin et al., 1987)
- Weekend Drinking.** The number of weekend drinks was self-reported by the participants.
- Current Smoking.** A dichotomous smoking variable was used to distinguish daily, weekly, and monthly smokers versus experimentally or never smokers.

## Methods

### Procedure

- After IRB approval was granted, participants were recruited online via Sona-system. Participants signed an informed consent form before they were prompted to being the survey. Participants were given course credit for their participation.

### Approach to Analyses

- A logistic regression and a linear regression assessed the relationships between multiple cultural constructs and current smoking (or not) and number of weekend drinks respectively.

## Results

- Any current smoking (39.1%) was statistically significantly associated with (Cox and Snell  $R^2=.106$ ): being male ( $OR=1.8$ ), lower acculturation ( $OR=.559$ ), and lower scores on the media microaggression subscale of the Revised Racial and Ethnic Microaggression Scale ( $OR=.71$ ).
- Average number of weekend drinks ( $M= 2.3$ ,  $SD=6.8$ ) was statistically significantly associated with increased assumptions of inferiority perceived microaggressions (Adjusted  $R^2=.076$ ;  $p<.05$ ).

## Tables

Table 1: Continuous Characteristics

	Mean	Std. Deviation	Range
Age	20.16	3.872	17 - 53
Familism	121.32	21.95	45 - 180
Acculturation (SASH)	3.34	.66	1.33 - 4.83
Acculturation (ARSMA)	3.33	.81	1.47 - 5
Latino Values	102.23	12.86	65 - 140
Assumption of Criminality	1.49	.95	1 - 5.60
Assumption of Inferiority	1.57	1.01	1-6
Assumptions of Similarity	2.47	1.35	1 - 6
Microinvalidations	1.74	1.09	1 - 6
Media Microaggressions	2.18	1.46	1 - 6
Weekend Drinking	2.34	6.92	0 - 100

Table 2: Summary of logistic regression predicting smoking

	SE	OR	CI(lower)	CI(upper)
Gender	.302	1.809	1.000	3.270
Age	.031	1.054	.991	1.121
Familism	.007	.990	.977	1.003
<b>Acculturation (SASH)</b>	<b>.201</b>	<b>.559</b>	<b>.377</b>	<b>.830</b>
Latino Values	.011	.984	.963	1.004
Assumption of Criminality	.228	1.009	.645	1.577
Assumption of Inferiority	.218	1.049	.685	1.608
Assumptions of Similarity	.114	1.125	.900	1.408
Microinvalidations	.182	1.304	.912	1.864
<b>Media Microaggressions</b>	<b>.116</b>	<b>.713</b>	<b>.568</b>	<b>.894</b>

Notes. Bold indicates  $p < .05$ . Nagelkerke  $R^2 = .144$

Table 3: Summary of linear regression predicting weekend drinking

	B	SE	Beta
Gender	.174	.993	.012
Age	-.082	.110	-.048
Familism	.040	.025	.113
Acculturation (SASH)	.267	.664	.026
Acculturation (ARSMA)	-.013	.017	-.056
Latino Values	-.022	.036	-.039
Assumption of Criminality	-.387	.843	-.048
<b>Assumption of Inferiority</b>	<b>2.083</b>	<b>.800</b>	<b>.274</b>
Assumptions of Similarity	-.354	.383	-.069
Microinvalidations	.861	.626	.124
Media Microaggressions	-.328	.348	-.068

Notes. Bold indicates  $p < .05$ . Nagelkerke  $R^2 = .076$

## Discussion

The inverse association between smoking and acculturation is inconsistent with convergence and acculturative stress theories of addictive behaviors, however is consistent with past empirical findings on the border (e.g., Cooper et al., 2011). That smoking was associated with decreased exposure to positive media images of people of color and that weekend drinking was associated with increased perceived assumptions of inferiority by others provides burgeoning evidence that smoking and drinking may be associated with perceived microaggressions. However, cultural constructs accounted for limited variance in both smoking and drinking, suggesting that other psychosocial constructs may be more strongly associated with Hispanic smoking and drinking.

Limitations of this study include: its cross-sectional, correlational nature, and its reliance of self-report. Strengths include the assessment of an all Hispanic, primarily Mexican American sample, and the inclusion of the more novel cultural constructs associated with microaggressions. Finally, future directions include assessing these constructs and other potential correlates associated with drinking and smoking in other college student samples prospectively.

## References

- Cheng, H. L., & Mallinckrodt, B. (2015). Racial/ethnic discrimination, posttraumatic stress symptoms, and alcohol problems in a longitudinal study of Hispanic/Latino college students. *Journal of Counseling Psychology, 62*(1), 38.
- 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.
- Esparza, O. A. (2005). *Factors derived from fatalism scales and their relationship to health-related variables* (Order No. 1430930). Available from Dissertations & Theses at University of Texas - El Paso; ProQuest Dissertations & Theses Global. (305383421). Retrieved from <http://search.proquest.com/docview/305383421?accountid=7121>
- Esparza, P., & Sanchez, B. (2008). The role of attitudinal familism in academic outcomes: a study of urban, Latino high school seniors. *Cultural Diversity and Ethnic Minority Psychology, 14*(3), 193.
- Kim, B. S. K., Soliz, A., Orellana, B., & Alamilla, S.G. (2009). Latino/a Values Scale:Development, reliability, and validity. *Measurement and Evaluation in Counseling and Development, 42*, 71-91.
- Marin, G., Sabogal, F., VanOss, M. B., Otero-Sabogal, R., & Perez-Stable, E. (1987). Development of a short acculturation scale for Hispanics. *Hispanic Journal of Behavioral Sciences, 9*, 193-205.
- 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>
- National Institute on Alcohol Abuse and Alcoholism (NIAAA). Alcohol and Tobacco. (n.d.). Retrieved from <https://pubs.niaaa.nih.gov/publications/AA71/AA71.htm>
- Nadal, K. L. (2011). The Racial and Ethnic Microaggressions Scale (REMS): construction, reliability, and validity. *Journal of Counseling Psychology, 58*(4), 470.
- Unger, J. B., Schwartz, S. J., Huh, J., Soto, D. W., & Baezconde-Garbanati, L. (2014). Acculturation and perceived discrimination: Predictors of substance use trajectories from adolescence to emerging adulthood among Hispanics. *Addictive Behaviors, 39*(9), 1293-1296.
- Venegas, J., Cooper, T. V., Naylor, N., Hanson, B. S., & Blow, J. A. (2012). Potential cultural predictors of heavy episodic drinking in Hispanic college students. *The American Journal on Addictions, 21*(2), 145-149.

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