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Family Cohesion and Pride: Drinking and Alcohol Use Disorders in Puerto Rico

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Abstract

Background—The extended multigenerational family is a core value of Hispanic culture. Family cohesion/pride can have protective effects on drinking and drug use related behavior among Hispanics.

Objectives—To examine the association between family cohesion/pride, drinking, binge drinking, and DSM-5 alcohol use disorder in Puerto Rico.

Methods—Data are from a household random sample of 1510 individuals 18-64 years of age of San Juan, Puerto Rico.

Results—Bivariate analyses showed that family cohesion/pride was not associated with the average number of drinks consumed per week, but was associated with binge drinking among men. Family cohesion/pride was also associated with DSM-5 alcohol use disorder. Results of the multivariate analyses were consistent with these bivariate results for DSM-5 AUD. Respondents with low (OR=2.2, 95CL=1.21-3.98; p<.01) and medium (OR=1.88; 95CL=1.12-3.14; p<.01) family cohesion/pride were more likely than those with high family cohesion/pride to have a positive diagnosis of DSM-5 alcohol use disorder. More liberal drinking norms and positive attitudes towards drinking were also strong predictors of the average number of drinks consumed per week. More liberal drinking norms also predicted binge drinking, and DSM-5 AUD.

Conclusions—Higher family cohesion/pride may have a protective effect against DSM-5 alcohol use disorder. This may have practical implications for clinical and prevention programs. As long as high cohesion is not enabling drinking, these programs can enhance and support family cohesion/pride to help clients in treatment and recovery and prevent drinking problems.

Keywords

family cohesion; drinking; binge drinking; DSM-5 AUD; Puerto Rico

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Introduction

The orientation to close family life and the support provided by the extended multigenerational Hispanic family are core values of Hispanic culture. The family provides basic emotional support, and sometimes financial support, to individuals in the group (1-3). Hispanics are said to draw considerable emotional support from their families during both normal and stressful times (4-6). Not surprisingly, the decrease or loss of a close family life and accompanying loss of emotional support has been seen as a factor of risk associated with an increased use of alcohol and illicit drugs among U.S.-born Hispanics (7, 8).

Hispanics family characteristics have been examined in a variety of ways. Past research has examined the respective roles of family cohesion (8, 9), familismo (4, 10), family support (11) and family pride (12, 13) on several psychological and substance use areas. Each of these family-related constructs is defined and measured in different ways, although family pride and familismo have been equated by some authors (13, 14). This paper focuses on family cohesion and family pride. Family cohesion has been defined as the emotional bond that family members have with one another (9, 15, 16). Family pride is a closely related concept, which assesses the level of trust, sharing of values and loyalty to the family. According to Canino et al. (12), family cohesion/pride, are part of a single dimension characterizing family structure among Hispanics, with loadings of .85 and .82, respectively, in principal component analysis. Family cohesion has been identified as protective against a series of problem behaviors among Hispanics, including alcohol and drug use (8, 9, 12, 17). Family pride has also been reported as protective against substance use disorder among both Hispanic men and women (12), and had a positive relationship with self-esteem among Cuba and Nicaraguan adolescents in the U.S. (13). However, the effect of these family related constructs is not consistently present or uniform across different Hispanic groups. For instance, Rivera et al. (9) reported a positive association between family cohesion and lower psychological distress for U.S. Hispanics. However, when data were examined for different Hispanic national groups, the findings held among Cubans and Other Hispanics, but not among Puerto Ricans. Further, family cohesion was a factor of risk for higher psychological distress among “other Latinos” (not of Cuban, Puerto Rican, or Mexican origin). Marsiglia et al. (8) reported that both high and low levels of family cohesion were a factor of risk for alcohol use among adolescents.

In Puerto Rico, high family cohesion/pride may be a factor that shields individuals against drinking problems (18, 19). For instance, Canino et al. (20) reported a lower percentage of heavy drinkers with problems in Puerto Rico (10%) compared to a sample of Mexican Americans (17%) as well as a lower percentage of alcohol use disorder (31% versus 43%), attributing these differences to the protective effect of the family against negative alcohol-related consequences. Illicit drug use has also been associated with a lower rate of disruptive behavior in Puerto Rico because of potential protective factors in the family (18, 19, 21).

Epidemiological information about drinking and associated consequences in Puerto Rico is limited for there have not been recent epidemiological surveys of drinking and associated problems on the island. Research with a focus on the adult population is dated because it analyzes data that are at least 15 years old (e.g., (22, 23)). Based on data from a 1989 island-

wide survey, Rios-Bedoya and Gallo reported a rate of 45.9% for any drinking in Puerto Rico, which was not different from a rate of 51.2% for Puerto Ricans in the U.S. mainland. They also reported a positive association between depressive symptoms and alcohol use by which depressed individuals on the island were 40% more likely to consume alcohol than those who were not depressed. A more recent survey was conducted in 1998 and data were analyzed by Colon et al. (23). The rate of past 12 month DSM-IV combined abuse and dependence was 4.1%, which is lower than the rate of DSM-5 AUD based on the survey under analysis here (men: 14%, women: 7%; both: 10%) and previously reported by Caetano et al. (24). Colon et al's rate is also lower than the rate of DSM-IV abuse and dependence reported by Caetano et al. (25) for U.S. Puerto Ricans in the HABLAS survey (men: 20.5%; women 7%) and the rate of 13.6% of DSM-5 AUD reported by Grant et al. (26) for U.S. Hispanics. However, comparisons between Puerto Ricans on the island and on the U.S. mainland should be made cautiously. There are inevitable cultural differences between these two groups due to acculturation of U.S. Puerto Ricans to U.S. society.

Other indicators of the extent of alcohol problems in Puerto Rico are alcohol-related deaths and per capita consumption. The 2004 mortality rate for chronic liver disease and cirrhosis on the island was 2.6/100,000 (27). In 2012, deaths for alcohol-induced causes, including death from dependent and non-dependent use of alcohol plus accidental poisoning by alcohol, a classification that is more inclusive than that for chronic liver disease and cirrhosis only, was 8.0/100,000 for the U.S. as a whole and 5.6/100,000 for Puerto Rico (28). The average 2008-2010 recorded per capita alcohol consumption in the population 15 years of age and older was 4.9 liters of pure ethanol (29). Estimated unrecorded consumption adds .5 liters for a 5.4 total. For comparison, the average per capita consumption in the World Health Organization (WHO) region of the Americas in which Puerto Rico is a part, was 8.4 liters of ethanol. The same WHO data for the U.S. indicate a per capita consumption of 8.4 liters of ethanol for the population 15 years of age and older. Other U.S. data show a 2008-2010 average per capita consumption of 8.7 liters of ethanol (30). Together, these two indicators show that per capita alcohol consumption is lower in Puerto Rico than in the U.S. and neighboring countries of Latin American and that health complications of chronic excessive drinking are also lower in Puerto Rico than in the U.S. mainland.

The objective of this paper is to examine the association between family cohesion/pride and three drinking related outcomes: volume of alcohol consumption (the average number of drinks consumed per week), binge drinking, and DSM-5 alcohol use disorder. Also, because of the potential protection of family cohesion/pride against the effects of alcohol and drugs proposed by Canino et al. (18), multivariate analyses will test a moderation effect of family cohesion/pride on the association between volume of drinking and binge drinking on DSM-5 AUD. The expectation is that the association between volume of drinking and binge drinking with DSM-5 AUD will become weaker in the presence of higher levels of family cohesion. Gender, age, employment status and religion are potential confounders of the association between family cohesion/pride and the outcomes under study. Therefore, the effect of these variables as well as that of norms and attitudes towards alcohol consumption, will be controlled in multivariate analysis.

Methods

Sample and data collection

Interviews were conducted with 1,510 residents of the metropolitan area of San Juan between May 2013 and October 2014. San Juan is the capital of Puerto Rico and the largest city on the island. San Juan is also a dense urban area; household sampling in the area would thus involve less interviewer travel, which served to contain expenses. Respondent selection followed a multistage cluster sampling procedure, with 220 Primary Sampling Units represented by Census Block Groups. Each selected Block was divided into segments of 10 households, with a segment then randomly selected in each Block. All households in this selected segment were screened. Trained interviewers screened for study eligibility and listed all eligible household members in a pre-prepared interview list form (Kish table) (31). Eligibility was based on age (18-64 years), ability to speak Spanish, no incapacitating cognitive impairment, and self-identification as Puerto Rican. Interviews were then carried out with a household member randomly selected from the list using a Kish table. The response rate for the survey was 83%. Computer Assisted Personal Interviews conducted at the respondents' home lasted about 1 hour. The pre-programmed questionnaire was originally developed in Spanish by the fieldwork research team led by the Puerto Rican and U.S. Principal Investigators, both Spanish-speaking. Respondents received a $25 incentive for participation and provided written informed consent.

Measurements

Average drinks per week—This was based on the past 12 months self-reported frequency and quantity (in standard drinks) of drinking any type of alcohol, and was estimated using the “graduated frequencies” method (32, 33). A standard drink was defined as a 5 ounce glass of table wine, a 12 ounce can of beer or a 1.5 ounce shot of spirits. Values for this variable ranged from 0 (abstainers) to 91 drinks per week.

Binge drinking—This was defined as drinking 4 or more (women) or 5 or more (men) standard drinks per occasion (within 2 hours) in the past 12 months. The variable representing binge drinking is a dichotomy with respondents divided into those who reported any binge drinking in the past 12 months and those who did not report this type of drinking including abstainers (reference group).

Alcohol use disorder—Alcohol use disorder (AUD) was based on DSM-5 criteria for AUD (34) and implemented with the Spanish version of the WHO's Composite Diagnostic Interview (CIDI). The instrument was translated from English and adapted for use in Spanish speaking populations following a cultural adaptation model described by Alegria et al. (35). The Spanish version of the instrument has adequate concordance in clinical reappraisal studies with the Structured Clinical Interview for Axis 1 Disorders (SCID) (kappa=.51; specificity=.82 for lifetime substance use disorders and .67 for major depressive episode) (36). According to DSM-5 criteria, respondents reporting the presence of any two or more indicators of the 11 indicators in the criteria during the 12 months prior to the interview were identified as positive for DSM-5 AUD.

Family cohesion/pride—This concept was measured using a 10-item scale. Items one thru seven, assessed respondents' agreement (mostly agree, somewhat agree, somewhat disagree, mostly disagree) with statements about their family characteristics (i.e., sharing of common values and beliefs, trust among family members, loyalty to family, pride in the family, sharing time with family, closeness to family members). These 7 items cover family pride and came from Olson's (37) Family Environment Scale, and have been previously used with Hispanics (see, (12, 13)). Items eight to ten covered respondents' assessment of family members expression of feelings (a lot, some, slightly, none) and spending time with the family (express feeling to family, love sharing time, feeling good together). These three items assess family cohesion and they come from Olson's (37) Family Cohesion Scale. These three items too have been frequently used to assess cohesion in Hispanic samples (see, (9, 12)). Cronbach's alpha for the scale in the data set under analysis was .93. The correlation between the family pride items and those measuring family cohesion was .80. For ease interpretation, this variable was divided into 3 categories: high, medium and low cohesion. A total of 41% of the sample had the highest possible score in the scale, 40, and were categorized as high cohesion. Scale scores for the rest of the sample were then evenly split, with the lower half labeled low cohesion and the upper half labeled medium cohesion.

Positive and negative attitudes toward drinking and drunkenness—Alcohol attitudes were measured with eight positive items (e.g., “having a drink is one of the pleasures of life”; $\alpha = 0.60$) and 4 negative items (e.g., “alcohol brings out the worst in people”; $\alpha = 0.69$), scored on binary agree–disagree scales. Higher scores indicate more positive and more negative attitudes, respectively. These items have been associated with drinking among Hispanics (38).

Drinking norms—Drinking norms were assessed with nine items covering drinking considered acceptable in various circumstances (e.g., friends at home, with coworkers out for lunch). Higher scores indicate more liberal norms. Cronbach's alpha in the data set under analysis is .87. In previous analyses, these items were positively associated with drinking an heavier drinking among U.S. Hispanics (38).

Sociodemographic variables: *Age*. The age of respondents was used as a categorical variable: 18-29, 30-39, 40-49 and 50 years and older (reference). *Employment status*. Respondents were categorized into 4 employment categories: a) Employed part-time; b) Employed full-time (35 or more hours of work per week; reference); c) Unemployed (unemployed, and looking for work); d) Not in the workforce (retired, homemaker, never worked, unemployed and not looking for work, students). *Religion*. This variable had 4 categories: Protestant, no religious preference, and Catholic (reference), and other religion. *Sex*. Respondents selected male or female.

Statistical analyses

To take into account the multistage, multicluster design used in the survey sampling frame, all analyses were conducted using Stata 14.0 (39). Analyses were conducted on data weighted to correct for unequal probabilities of selection into the sample. In addition, a post-stratification weight was applied, which corrects for nonresponse and adjusts the sample to

known population distributions on certain demographic variables (age and gender). Bivariate analyses (Table 1) included chi-square tests to detect statistically significant associations between family cohesion/pride and alcohol outcomes. Multivariate ordinary least squares regression (Table 2) was used to examine the association between family cohesion/pride and the number of drinks consumed per week (logarithmic transformation). Multivariate logistic regression (Table 3) was used to assess the association between family cohesion/pride and binge drinking in the past year, and past 12 months DSM-5 AUD. Covariates in all multivariate analyses were gender, age, employment status, and religion. These were selected based on previous findings of analyses of this data set (see (24)). The logistic regression with DSM-5 AUD was run while controlling for the above sociodemographic covariates plus volume of drinking and binge drinking. Finally, the test of the hypothesized moderation effect of family cohesion on the association between volume of drinking and binge drinking with DSM-5 AUD was not statistically significant (family cohesion × binge: OR=1.44; 95CL=.73-2.84; p=.28; family cohesion × volume of drinking: OR=.98; 95CL=.96-1.00; p=.15). Therefore, the multivariate model for this analysis in Table 3 shows results for main effects only.

Results

Sample characteristics

The sample was almost equally divided between men (46%) and women (54%). The mean age was 41.7 years (SE: .36); 51% of the respondents were Catholic and 26% were Protestants. About 83% of the sample had an annual family income below $18,000, and only a fifth reported an annual family income above $36,000. A total of 38% of respondents had never married, 2% were widowed, and 37% were married or living with someone. About 12% were unemployed, and 58% were employed either part-time or full-time. Complete high school education was reported by 18% of the sample and 43% had a college degree. Finally, only 3% of the sample had ever lived in the U.S. mainland.

Bivariate Analysis: Family cohesion/pride, drinking, binge drinking, and DSM-5 AUD

Among men, the mean number of drinks consumed per week was not associated with family cohesion. Oneway analysis of variance with Pairwise *t* tests of the difference in means between the low (mean=13.1; 95CI=8.8-17.4), medium (mean=14.2; 95CI=10.1-18.2) and high (mean=9.6; 95CI=7.5-11.8) family cohesion groups were not statistically significant. Family cohesion was negatively associated with binge drinking in the past 12 months, and DSM-5 AUD, and both these associations were statistically significant (p<.001). Men with a higher level of family cohesion had a rate of DSM-5 AUD in the past 12 months that was three times lower than that among men with a low level of family cohesion.

Among women, as with men, the average number of drinks consumed per week was not statistically associated with family cohesion. Oneway analysis of variance with Pairwise *t* tests of the difference in means between the low (mean=6.3; 95CI=4.3-8.4), medium (mean=6.8; 95CI=4.4-9.1) and high (mean=5.6; 95CI=4.0-7.1) family cohesion/pride groups were not statistically significant. The same is true for the proportion of binge drinkers in the past 12 months. In contrast, family cohesion among women was negatively associated with

the rate of DSM-5 AUD in the past 12 months. The rate for women with DSM-5 AUD in the high family cohesion group was three times lower than the respective rate among women in the low family cohesion group. This association was statistically significant (p<.001)

Multivariate analyses: Family cohesion/pride and the average number of drinks consumed per week

Family cohesion was not associated with the average number of drinks consumed per week (Table 2). Respondents who were not in the workforce drank less than those who were employed fulltime (p<.001). The same was true for those who were 40-49 years of age compared to those who were 50 years of age or more (p<.01). Men drank more than women (p<.01) and those with more liberal drinking norms or with more positive attitudes towards drinking also consumed a higher average number of drinks per week (p<.001; p<.01).

Multivariate analyses: Family cohesion/pride, binge drinking, and DSM-5 AUD

Family cohesion/pride was not statistically associated with binge drinking, but was protective against DSM-5 AUD (Table 3). Respondents in the low cohesion group were two times more likely than those with high family cohesion to be positive for DSM-5 AUD (p<.01), while those with medium family cohesion were almost two times more likely than those with high cohesion to be DSM-5 positive (p<.01).

Other factors of risk for binge drinking were younger age (18-29 compared to 50+, p<.001), having more liberal drinking norms (p<.001) and, as expected, consuming a higher number of drink per week (p<.001). A positive diagnosis of DSM-5 AUD was also associated with having more liberal drinking norms (p<.01), consuming a higher number of drinks per week (p<.001) and binge drinking (p<.01).

Discussion

The results from bivariate analyses in this paper indicated an association between family cohesion/pride and binge drinking among men only and DSM-5 AUD among both men and women. The results of multivariate analyses did not indicate an association of family cohesion/pride with the average number of drink consumed per week or with binge drinking, but the association between higher family cohesion/pride and a lower prevalence of DSM-5 AUD was present in this analysis. There was no confirmation of the hypothesized modification effect of family cohesion/pride on the association between drinks consumed per week, binge drinking, or DSM-5 AUD. The protection as well as the potential risks that high family cohesion brings to individuals among U.S. Hispanics has been recognized in the literature (8, 9, 17). The results here confirm a specific protective factor in relation to AUD in a population of Hispanics outside of the U.S. mainland, adult residents of San Juan, Puerto Rico.

The challenge in interpreting this protective factor is to identify and understand its underlying mechanism. In general, the discussion in the literature has linked this protective effect to the emotional help and perhaps material help (e.g., financial, housing) that families can provide to individuals (9, 18). However, when these family ties become excessively close, and families become highly enmeshed, the development and growth of individual

identity can be limited, triggering conflict and risk to individuals' health (8). This clash within families has been identified as a factor of risk mostly among adolescents (8, 15), not among adults as is the case of the sample under analysis.

But why, as the results indicate, would family cohesion/pride protect against the consequences of drinking and not against drinking or binge drinking? Perhaps family cohesion would have an effect on problems because they affect the individual as well as the surrounding family members in very direct ways. Drinking, even if it is binge and heavy drinking, would not affect family members directly if it was not accompanied by problems. Also, drinking in general, may be more regulated by norms and attitudes, which tend to be liberal in Puerto Rico. In fact, the two strongest predictors of volume of drinking in the analysis in Table 2 were drinking norms and positive attitudes towards drinking. The same was true for the results in Table 3 regarding the association of drinking norms and binge drinking. This influence of norms and attitudes towards alcohol on drinking behavior has been well established in the alcohol literature.(38, 40) A second question related to the protective effect of family cohesion against DSM-5 AUD reported herein is whether such an effect should be seen as truly beneficial or as just enabling further drinking while protecting individuals from problems. This understanding is important for it has clear practical implications: If the effect is truly beneficial, then both clinical and prevention interventions should try to increase family cohesion to help individuals and prevent problems. If the effect leads to more drinking, the approach should be different. Families should be encouraged to support treatment but not enable further drinking. Finally, because of the cross-sectional nature of the data under analysis, it is possible, although unlikely, that DSM-5 AUD preceded family cohesion, and not the other way around.

Besides family cohesion, other variables in the analyses were associated with the examined outcomes. Respondents not in the workforce drank less than those who were employed fulltime, a finding reported in other analyses of this data set (24). This may be due to the composition of the group, which may be made up of women, older individuals and those who may not be able to work because of chronic medical conditions. Men and those with more liberal norms and positive attitudes towards drinking, as mentioned above, are also more likely to drink more. More liberal drinking norms, age, the number of drinks consumed per week and binge drinking were positively associated with DSM-5 AUD. Surprisingly, male gender was not associated with binge drinking, and DSM-5 AUD in the multivariate analyses. This result contradicts past research on the association of gender and drinking in the U.S., with Hispanics groups and in Latin American countries (see, (41-43). Previous findings for Puerto Ricans in the U.S. mainland (25, 44) show that male gender is associated with DSM-IV alcohol abuse. Regarding DSM-IV dependence, this previous research showed an interaction of gender by age indicating that 18-29 year old men were significantly more likely than 18-29 year old women to be dependent. However, as stated in the Introduction, caution is needed when comparing Puerto Ricans on the island with those on the mainland. These two groups are somewhat culturally different given the acculturation to U.S. society that happens for many of those in the U.S. Male gender also predicted binge drinking and volume of drinking. Given that results in Table 1 show considerable differences between men and women, it seems that the potential effect of gender is confounded by sociodemographic variables, norms and attitudes. In fact, the effect of gender on the alcohol

outcomes under analysis was no longer statistically significant once the effect of the above mentioned confounders was controlled for in the multivariate analyses.

Conclusions

The findings in this paper indicate that family cohesion may have a protective effect against the development of DSM-5 AUD. This effect is similar to that reported in past research for a variety of health related behaviors, including alcohol and drug use for Hispanics in the U.S. mainland. It contradicts results from at least one previous paper by Rivera et al. (9) who did not detect effects of family cohesion on psychological distress for Puerto Ricans on the U.S. mainland. In Puerto Rico, if family cohesion is truly protective and not just enabling against the consequences of drinking, it should be seen as a potentially important factor to be incorporated into clinical and prevention interventions targeted at alcohol use disorder.

Strengths and Limitations

The study has many strengths. It is based on analyses of a random sample of the adult population of San Juan, which was interviewed face–to-face in a survey with a particularly high response rate of 83%. Data collection covered several drinking outcomes in detail. Data analyses took into account important confounders of the association between family cohesion and the drinking outcomes under analysis. The study also has limitations. Data collection was based on self-reports, which may lead to under-reporting of alcohol consumption. The study design was cross-sectional, which does not allow for assessments of temporal associations. Results may not be representative of Puerto Ricans living outside the San Juan metropolitan area, where respondents were interviewed. It is also possible that potential confounders of predictors in the analyses in Tables 2 and 3 were not considered, and potential moderating effects were not tested.

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Table 1

Family Cohesion, Binge Drinking, and DSM-5 Alcohol Use Disorder Among Men and Women, Puerto Rico, 2014

	Men			
	Low	**Medium**	**High**	**Total**
	(154)	(211)	(300)	(665)
Binge in past 12 months ***	37%	23%	21%	26%
DSM-5 AUD, past 12 months ***	20%	19%	7%	14%
	Women			
	Low	Medium	High	Total
	(182)	(252)	(354)	(788)
Binge in past 12 months ns	22%	15%	15%	17%
DSM-5 AUD, past 12 months ***	13%	6%	4%	7%

Notes: Parentheses indicates denominator: number of men/women in the sample in the analysis; ns: not statistically significant;

*** $p < 0.001$.

Table 2

Linear Regression Predicting Average Number of Drinks per Week (logarithmic transformed)_

	Coefficient	SE	95% CI
Family Cohesion (Ref: High)			
Low	.45	1.29	-2.09-3.00
Medium	1.40	1.01	-.60-3.40
Religion (Ref: Catholic)			
Protestant	.94	.89	-.81-2.71
Other religious preference	0.20	2.06	-3.86-4.27
No religious preference	.55	1.16	-1.73-2.85
Employment Status (Ref: Employed full-time)			
Unemployed	-.53	1.25	-3.00-1.93
Employed part-time	-.19	1.44	-3.04-2.65
Not in workforce	-2.24***	.78	-3.78- -.700
Age (Ref: 50+ years)			
18-29 years	-1.68	1.16	-3.98-.60
30-39 years	-1.18	1.08	-3.33- .95
40-49 years	-3.02**	1.01	-5.03- -1.01
Gender (Ref: Female)			
Male	3.19**	1.09	1.03-5.35
Drinking Norms	8.98***	1.39	6.23-11.72
Positive Attitudes	8.04**	2.8	2.50-13.59
Negative Attitudes	1.83	1.39	-.01- 4.59

Notes: Ref. = Reference group; SE = Standard error; CI = Confidence interval;

** $p < 0.01$

*** $p < 0.001$.

Table 3

Logistic Regression Predicting Binge Drinking and DSM-5 AUD in the past 12 months

	Binge drinking at least once past 12 months		DSM-5 AUD past 12 months	
	OR	95% CI	OR	95% CI
Family Cohesion (Ref: High)				
Low	1.38	.96-1.98	2.20**	1.21-3.98
Medium	.76	.52-1.12	1.88**	1.12-3.14
Religion (Ref: Catholic)				
Protestant	.71	.47-1 .09	1.50	.84-2 .66
Other religious preference	1.02	.39-2.70	.34	.05-2.13
No religious preference	1.07	.71-1.61	1.24	.65-2.35
Employment Status (Ref: Employed full-time)				
Unemployed	1.45	.90-2 .36	1.44	.68-3 .05
Employed Part-time	.84	.50-1.39	1.42	.75-2.71
Not in workforce	.74	.48-1.15	1.03	.54-1.95
Age (Ref: 50+ years)				
18-29 years	1.96***	1.33- 2.90	1.73	.98-3 .07
30-39 years	1.24	.80-1.94	1.28	.65-2.52
40-49 years	.78	.45-1.35	1.18	.54-2.54
Gender (Ref: Female)				
Male	1.10	.80-1.5 1	1.36	.84-2 .20
Drinking Norms	3.84***	2.35-6.29	3.10**	1.47-6.52
Positive Attitudes	.93	.40-2.16	2.67	.69-10.37
Negative Attitudes	.97	.55-1.70	.87	.40-1.93
Average N drinks/week	1.15***	1.03-1.07	1.03***	1.01-1.05
Binge Drinking at Least Once 12 Months	-	-	2.17**	1.31-3.57

Notes:

* < 0.05;

** p < 0.01;

*** p <0.001.