Acculturation, Peer Influence, Alcohol Protective Behavioral Strategies, and Alcohol Use and Related Problems among Asian and Pacific Islander College Students

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Abstract

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Despite popular perceptions, rates of alcohol use have gradually increased in Asian and Pacific Islander American (APIA) college students. Both acculturation and peer influence have been identified as factors contributing to variations in drinking behavior among this population. However, less is known about the experience of alcohol-related problems. The current study assessed the use of alcohol protective behavioral strategies as a potential causal pathway to drinking behavior and alcohol-related problems among an ethnically diverse sample of APIA college students (*N = 449*). Results from path analyses indicated that: (1) greater orientation towards U.S. culture had a positive relationship with increased use of harm reduction strategies, e.g. using a designated driver, and an inverse relationship with drinking moderation strategies; e.g. avoiding shots of liquor (2) greater peer drinking predicted fewer protective behaviors and increased drinking; (3) use of serious harm reduction strategies predicted decreased alcohol-related problems; (4) use of stopping/limiting strategies was associated with increased drinking; and (5) greater use of drinking moderation strategies was related to decreased drinking which in

turn would predict decreased alcohol-related problems. Similar patterns emerged when testing the model for specific API subgroups, i.e. Korean and Chinese Americans. The study contributed to the growing literature examining the links between acculturation and problematic drinking. Results have implications for the development of culturally sensitive treatment and prevention programs targeting alcohol protective behaviors toward this diverse and growing population.

Introduction

Student alcohol use continues to be a significant public health issue on college campuses across the United States and continued development of interventions remain a high priority. Asian and Pacific Islander American students represent a heterogeneous and growing presence in U.S. colleges. For these students, there is a perception that alcohol use is not a major issue given lower overall prevalence rates of use and dependence among APIAs compared to other ethnic groups (e.g. Sakai et al., 2005). However, risk for problematic alcohol use among college age APIAs appears to be on the rise. Prevalence of binge drinking (4 drinks for women, 5 drinks for men on a single occasion; NIAAA, 2004) gradually increased for APIA college students, at rates greater than other ethnic groups, from 1993-2001 (Wechsler et al., 2002). National rates of DSM-IV alcohol dependence doubled for APIA males aged 18-29 from 1991-2002, while rates of abuse in females increased nearly five fold (Grant et al., 2004). Several factors have been identified to account for drinking behavior, including adherence to family values and genetic predisposition (Au & Donaldson, 2000; Hendershot et al., 2005).

However, less is known about how APIA students experience alcohol-related problems. In national studies, student drinkers report experiencing negative consequences associated with alcohol use including: missing classes, getting behind in schoolwork, doing something they later regretted, forgetting their actions, arguing with friends, or drunk driving (Wechsler et al., 2002). While these are typically associated with frequent heavy drinking, potentially harmful events can occur even during single episodes of moderate to heavy drinking (e.g. Hingson et al., 2002). In some cases, drinking habits may not significantly predict specific problems (Perkins et al., 2002).

Research focusing on APIAs has been limited to comparisons with other ethnic groups. Similar to the literature on alcohol consumption, APIA students have had lower overall rates for

negative consequences especially when compared to White students (as reviewed in Perkins, 2002). No studies have examined how factors related to drinking behavior, as well as any other potential risk or protective factors, may also be contribute to alcohol-related problems. The current research aims to have a more specific understanding of acculturation, peer influence, and use of alcohol protective behavioral strategies and their connection to alcohol use and related problems. Clarifying the process for experiencing alcohol-related problems is warranted given the increasing presence of API students on U.S. college campuses.

Acculturation

Acculturation is the ongoing process where members of an immigrant or minority group adopt the dominant or mainstream cultural values, practices, and norms (Gordon, 1964). It has been suggested that drinking styles vary by culture, i.e. heavy drinking is more common in some cultures while drinking in other cultures is characterized by a moderate style. Thus, acculturation has been linked to alcohol using behaviors of Asian and Pacific Islander (API) Americans and other ethnic communities (e.g. Hendershot et al., 2008; Hahm et al., 2004; Zamboanga, 2005). Typically, this has been examined by comparing drinking quantity, binge drinking, and rates of alcohol dependence between ethnic groups, by comparing U.S. and international born individuals, and/or comparing by levels of exposure to U.S. culture.

Engagement in alcohol use tends to be more common among adolescents and adults in Western than in most API cultures (e.g. Le et al., 2009; Higuchi et al., 1994), suggesting that acculturation, i.e. orienting to U.S./Western culture, is a risk factor amongst APIAs. However, differing patterns for the relationship between acculturation and alcohol use were observed whereby it was a protective factor for Korean American college students and had negligible effects for Chinese American students (Hendershot et al., 2008). Thus potential effects of

acculturation do not appear to be uniform (see also Eng et al., 2008). Furthermore, while research has linked acculturation to drinking rates, no causal mechanism has been explicated. The current study seeks to expand upon previous findings by examining acculturation in the context of other alcohol outcome variables, and thereby testing for potential indirect effects on alcohol-related problems.

Peer Influence

In general, peers are often the strongest influence on personal behavior of adolescents and young adults (e.g. Baer, 2002; Perkins, 2002). Peer influence may be most salient as young people transition into college, where there are more opportunities to engage in these behaviors as well as the pressures of fitting in with new peers (Borsari & Carey, 2001). Previous research has indicated peer influence by the perceived attitudes towards drinking of friends, having friends who drink, and /or drinking habits of friends. It is frequently associated with the onset of drinking and substance use, as well as higher rates of drinking (e.g. Borsari & Carey, 2001, 2006; Talbott et al., 2008).

APIA college students have reported less peer and parental influence to use alcohol and more negative attitudes from peers compared to White students (Keefe & Newcomb, 1996; Au & Donaldson, 2000). However, peer influences have also been the strongest predictors of alcohol and substance relative to other variables (Le et al., 2009; Liu & Iwamoto, 2007; Otsuki, 2003). Peer influence has also been examined in concurrence with acculturation amongst ethnic minority adolescents. Findings from these studies reveled that less acculturated individual are less likely to exposed to peer pressures and that peer influence mediates the relationship between acculturation and binge drinking (Blake et al., 2001; Hahm et al., 2004). The authors of those studies suggested that greater acculturation led to greater association with drinking peers. To

extend these findings to APIA college students, the current study also assesses indirect effects of peer influence on alcohol-related problems.

Protective Behavioral Strategies

For both peer influence and acculturation, the link to alcohol use quantity may also extend to alcohol protective behavioral strategies (PBS). PBS are harm-reduction behaviors used in situations where individuals will drink alcohol, with the goal of reducing potentially harmful consequences (Martens, 2004). Use of PBS has been linked to both lower alcohol consumption and lower risk of experiencing alcohol related problems in the general college population (e.g. Lewis et al., 2010; Martens et al., 2004, 2007). PBS includes strategies primarily aimed at reducing drinking quantity, such as setting limits or drinking at moderate pace, as well as strategies aimed to directly protect against harmful events, such as using a designated driver. Education on PBS has been implemented in intervention programs aimed at reducing risky drinking in college students.

Examining PBS among APIAs may provide further behavioral evidence for a moderate and controlled drinking style that has been proposed among Asian cultures. Cultural values such as responsibility to others and family achievement may promote moderate drinking and negative views of drunkenness (see Caetano, 1998 for review), which may be salient among college age APIAs. Only one study has examined the use of PBS in APIA college students. There, APIAs endorsed more strategies to stop/limit drinking and fewer serious harm reduction strategies compared to White students. PBS was also correlated with reduced drinking (LaBrie et al., 2011). Additionally fewer APIA students have been found to participate in drinking games (Pedersen & LaBrie, 2006). These results are consistent with those found for drinking quantity among APIs. Meanwhile, recent research also suggests differences in perceived peer acceptance for use of

PBS (Demartini, Carey, Lao, & Luciano, 2011). Practice of PBS, and in turn reduced risk for alcohol-related problems, may then be a function of cultural orientation and peer influence.

Present Study and Hypotheses

This study tests the relationships displayed in Figure 1 in a sample of APIA college students. The hypotheses are as follows: (1) greater acculturation, i.e. greater orientation to Western/U.S. culture, will be associated with decreased practice of all three types of PBS; (2) greater peer drinking will also be negatively associated with use of PBS (3) in turn, the Stopping/Limiting and Manner of Drinking types of PBS will be associated with decreased weekly drinking; (4) the Harm Reduction strategies will predict decreased alcohol-related problems; and (5) weekly drinking will be associated with increased alcohol-related problems.

A correlation between acculturation and peer drinking was tested given past research relating similar constructs. A direct relationship between acculturation and weekly drinking was also tested given that differences in other alcohol related variables have been observed across cultures, e.g. expectancies (Oei & Jardim, 2007). The same was also done for peer drinking and weekly drinking given that no previous research would suggest that PBS completely mediates this relationship. Regarding specific PBS, a direct relationship between serious harm reduction and alcohol-related problems was tested because these strategies do not involve controlling drinking quantities but are more geared towards preventing specific problems, e.g. using a designated driver. Also, the residual variances for each PBS scale were correlated with one another, consistent with the relationships observed in other studies using the scale.

Finally, these relationships were assessed in two sets of analyses. First using the entire sample and then in a multi-group comparison of Chinese and Korean American students. This was to examine any potential differences in the proposed model among specific subgroups,

which was warranted given the differing rates of alcohol use between API groups (e.g. Lum et al., 2009). Chinese and Korean Americans were selected given that they were the two largest groups in the sample and also because of past research identifying differential patterns of acculturation between the two groups (Hendershot et al., 2008). We hypothesized that the relationship between acculturation and the PBS would differ such that greater acculturation would predict greater practice of PBS for Korean Americans.

Method

Procedures

Data was collected as part of a larger study on alcohol, substance use, and gambling. 1938 undergraduate students at the University of Washington completed a battery of online measures for course credit. 886 participants identified as having an Asian or Pacific Islander ethnic background, in whole or in part, and were between the ages of 18-27. The alcohol use measures of interest were only administered to participants who reported drinking at least once in the past 6 months (n =601). Since protective behavioral strategies aim to reduce heavy drinking and assume that at least some alcohol will be consumed, rather than abstaining or refusing drinks per se, only API students who reported current drinking were included in the current analyses. This was defined as consuming at least 1 drink on a typical week in the past 6 months (assessed using the Daily Drinking Questionnaire, see below).

Participants

The final sample consisted of 449 participants. The majority of the sample was female (63.6%). Breakdown of specific API subgroups was as follows: 25.6% Korean, 20.1% Chinese, 9.7 % Vietnamese, 9.3% Taiwanese, 8.4% Filipino, 7.7% Japanese, 4.9% Multi-Asian, and Other

Asian/Pacific Islander. 14.1% of the participants reported having a mixed-race background, e.g. White and Chinese. Mean age was 19.54 years (*SD* = 1.30)

Measures

Acculturation. Level of acculturation was assessed using the Suinn-Lew Asian Acculturation (SL-ASIA) scale (Suinn et al., 1992). The SL-ASIA consists of 21 items pertaining to one's generation (1st, 2nd, etc.), language use, food preference, adherence to Asian traditions, and community involvement. Total scores are calculated by averaging responses to items on a 5-point scale. The SL-ASIA has been the most widely used method of assessing acculturation among Asian Americans (Abe-Kim et al, 2001). Reliability coefficient was .92 in this study.

Alcohol use protective behavioral strategies. The Alcohol Protective Behaviors Scale (Martens, et al., 2005) consists of 15 items to assess engagement in behaviors associated with reducing acute risks of alcohol consumption. It consists of three subscales: (1) stopping/limiting drinking, e.g. "alternate between alcohol and non-alcoholic drinks" (2) manner of drinking, e.g. "avoid drinking games"; (3) serious harm reduction e.g., "know where you drink has been at all times." Each item is scored on a scale of 1 to 5 ranging from "never" to "always". Reliability coefficients were .89, .62, and .86, respectively.

Peer Drinking. Peer drinking habits were assessed with an adaptation of the Daily Drinking Questionnaire (DDQ; Collins, Parks, & Marlatt, 1985), asking participants to estimate the number of drinks consumed in a typical week by their closest friend.

Drinking quantity. This was assessed with the DDQ (Collins, Parks, & Marlatt, 1985), which asks participants to record the average number of drinks consumed for each day of a typical week. The total sum indicates the average number of drinks consumed per week.

Alcohol-related problems. Social and personal consequences, and potential alcohol dependence symptoms in the past 6 months were assessed with the Rutgers Alcohol Problem Index (RAPI; White & Labouvie, 1989). The RAPI is a 25-item questionnaire where participants rate the frequency of particular alcohol-related outcomes such as "went to work or school high or drunk" and "had withdrawal symptoms." RAPI scores were the sum of the total items endorsed, with a reliability of .93.

Data Screening and Missing Data

Data were screened for outliers. One case was removed from analysis based on DDQ scores (135 reported drinks). As is common in alcohol research, the alcohol variables (Peer Drinking, PBS, DDQ, and RAPI) did not meet normality assumptions and had high values for skew and kurtosis. Therefore all variables were log transformed for analyses.

From the final sample of current APIA drinkers, 13 cases had incomplete data. Missing data were handled using multiple imputation methods. Using the Expectation Maximization (EM) algorithm in LISREL 8.8, missing data was imputed based on other variables in the model. Covariances were then estimated to analyze the model.

Data Analysis

The relationships were tested using manifest model path analyses. Each variable used a single indicator, usually the sum score of a particular measurement scale, rather than a latent measurement model. They were treated as observed variables that were continuous and normally distributed. Thus parameters were calculated using maximum likelihood estimation. A limitation for treating the variables as manifest rather than latent constructs is that it does not take into account measurement error. Since there is only one observed measure, it is important that each scale have good psychometric characteristics (Kline, 2011). Whereas measurement error always

attenuates bivariate associations, it can have unpredictable effects on multivariate models as is tested here (Rigdon, 1994). Thus, reliability scores were calculated for each respective variable and estimates were interpreted in light of potential measurement error. The hypothesized path model was tested using LISREL 8.8.

Results

Descriptive statistics for the model variables, non-transformed can be found in Table 1.

Path Analysis for Full Sample

Structural paths and standardized coefficients, both significant and non-significant, are presented in Figure 1. Estimates for the path model are included in Figure 1 and in Table 3. The hypothesized model achieved good fit. Fit indices were as follows: $\chi^2(df = 5) = 9.29$, $p = .43$; *RMSEA* = .05, *CFI* = 1.00. Overall, the model accounted for 29% of variance for alcohol-related problems, 39% for drinking quantity, less than 1% for stopping/limiting drinking, 3% for manner of drinking, and 5% for serious harm reduction.

In examining the significant paths and correlations, the correlation between the exogenous variables was significant. There were significant, but weak, paths between acculturation and the manner of drinking and serious harm reduction scales, with the former being an inverse relationship. There was a significant, albeit weak, path between acculturation and drinking quantity. Peer drinking had a significant path with serious harm reduction strategies. However, peer drinking had a strong relationship with weekly drinking. The manner of drinking and stopping/limiting drinking strategies both had significant paths with weekly drinking. In turn, drinking quantity was a strong predictor of alcohol-related problems. Serious harm reduction had a significant but weak association with alcohol related problems.

Indirect effects on alcohol-related problems were also calculated in LISREL. Significant indirect effects were observed on alcohol-related problems for acculturation (β = .07), peer drinking (β = .11), stopping/limiting drinking ((β = .13), and manner of drinking (β = -.30). Alternative models were not considered given that there were low standardized residuals, no theoretical or conceptual support, or would violate Wright's path rules (1934).

Path Analysis for Korean and Chinese American Subsample

To test for any potential differences between subgroups, we assessed the model specifically among Korean and Chinese Americans. The path coefficients for each group are presented in Table 3. The model had good fit among the total subsample and within each specific group. Global fit indices were as follows: $\chi^2(df = 10) = 4.58$, p = .92; *RMSEA* = 0.0, *CFI* = 1.00. For Chinese Americans, the contribution to chi-square was 43.07% and Goodness of Fit Index was .99. The model accounted 24% of the variance in alcohol-related problems, 48% for weekly drinks, less than 1% for stopping/limiting, 2% for manner of drinking, and 15% for serious harm reduction. Korean Americans, the contribution to chi-square was 56.93% and Goodness of Fit Index was .99. The model accounted for 33% of the variance in alcohol-related problems, 32% for weekly drinks, less than 1% for stopping/limiting, 9% for manner of drinking, and 4% for serious harm reduction.

Statistically significant paths were similar to the full sample, though some differing patterns emerged. For Chinese Americans, acculturation only had a significant path with serious harm reduction and not with manner of drinking. The opposite pattern was observed for Korean Americans. For Korean Americans, the path between serious harm reduction and alcohol-related problems was not significant. Furthermore, the correlation between peer drinking and acculturation was not significant for Korean Americans.

Discussion

The study contributed to the literature on APIA college student drinking in three ways: (1) it examined alcohol protective behavioral strategies in the context of acculturation and peer drinking habits; (2) it examined the relationship between PBS and other alcohol variables among APIs alone, rather than college students in general; and (3) it was the first to examine these relationships in specific APIA subgroups. The findings provide insight into the pathways in which acculturation and peer drinking may lead to experiencing alcohol-related problems, and the role of PBS in that process.

The Role of Acculturation and Peer Drinking

For all APIA students, there was a significant inverse relationship between acculturation and manner of drinking scores, though the effects were trivial. This suggested that more acculturated students, i.e. more oriented to U.S./Western culture, may be more likely to engage in activities such as drinking games and taking shots of liquor and on a more frequent basis while engaging less in slower drinking. Although this effect was negligible in the current study, this corroborates with and may help to explain other studies where acculturation was associated with greater drinking (e.g. Hahm et al., 2004; Le et al., 2008). At the same time, acculturation led to slight increases in serious harm reduction strategies. Again while these effects were minimal, these strategies deal directly with minimizing risk for acute events such as drunk driving and risky sexual behavior. It may be that less acculturated individuals are less likely to be in drinking situations or environments where these may occur, since API students tend to experience such events less overall when compared to other students (e.g. Shenoy et al., 2008). These results however should be interpreted with caution given the small effects and also the small effects of

acculturation on drinking behavior. Further study is warranted with more accurate measurement before linking acculturation with specific protective behaviors.

Peer drinking meanwhile, had a strong direct effect on drinking behavior, which is the pattern in the overall literature. However, it too had negligible effects on use of PBS. The only significant path was a positive relationship with serious harm reduction. Similar to the finding with acculturation, it is possible that perceiving greater drinking among friends increases the likelihood that an individual is exposed to drinking situations where serious harm reduction is relevant. These students may drink more heavily but take action to avoid acutely harmful consequences.

Overall though, acculturation and peer drinking combined only accounted for a small portion of variance on all three types of PBS, and no indirect effects were observed on weekly drinking and alcohol-related problems. While the literature on acculturation may be inconsistent, this was surprising given the robust findings of peer influence on alcohol use both in the general literature and in the current study. Predictors of overall drinking quantity then may not influence practice of specific PBS in the same manner. Perhaps svariables such as peer norms need to be adapted for practice of PBS among peers, e.g., to what extent do peers avoid drinking games, rather than drinking quantity of peers. Another possibility is that other statistical models may be more appropriate to test relationships, e.g. acculturation may be a moderator of the relationship between PBS and alcohol-related problems.

Alcohol Protective Behaviors as Predictors

The studies that were used to validate the PBS scales had samples that were 75% White, located in New York and California, and observed negative relationships with alcohol variables for all three subscales (Martens et al., 2005, 2007). In the current study, there were differing

relationships between the three PBS subscales and other alcohol variables among APIAs in Washington state. Furthermore, two of the subscales were actually associated with increased drinking and related problems. The finding that stopping/limiting strategies was associated with increased drinking was surprising given a previous study where APIAs endorsed these strategies more than White students and drank less overall as well (LaBrie et al., 2011). In turn, increased drinking led to greater likelihood for alcohol-related problems. Since these strategies represent conscious efforts to control drinking, rather than a consistent style of drinking, perhaps students who practice these strategies are already drinking at higher levels. Those who do not likely drink at low enough levels where using them is not necessary.

A similar interpretation can be made for positive relationship between serious harm reduction strategies and alcohol-related problems. These students may have occasionally experienced specific alcohol-related problems, such as driving after drinking, and therefore utilize these strategies to decrease their chances. In other words, these findings may represent an attempt by students to learn from their mistakes. This may be a gradual process, as a previous study indicated that those who experienced alcohol related consequences in the past overestimate how much alcohol they can drink before experiencing them again (Mallett et al., 2006). Meanwhile, those that do not practice these strategies may rarely experience such problems and again, use of these strategies is not necessary.

Meanwhile, manner of drinking scores were related to decreased drinking which is consistent with previous studies. This finding provides support for a moderate drinking style that is often attributed to APIAs (Caetano, 1998). For college students, factors such as parental disapproval, avoidance of shame or embarrassing situations, and emphasis on academic

achievement may reinforce this. A more controlled drinking style may preclude any plans to drink heavily and any need to impose a self-limit.

The direction of these relationships between PBS and drinking is consistent with a previous study using similar sampling techniques (Paves, Hsu, & Lostutter, 2010). Potential mechanisms for these findings could not be extracted from the other variables in the current model. The relationships could be clarified in longitudinal studies, particularly those testing interventions that incorporate PBS training. Additionally, there is no reason to believe that the types of PBS are mutually exclusive. However, it may be that more frequent practice of one strategy leads to decreased practice of another.

Subgroup Differences

The model was tested specifically in Korean and Chinese American students. Though differences in drinking behavior emerged, the results primarily showed common relationships between variables. Differences in significant paths were for trivial relationships. Other predictors of alcohol use which were not assessed in this study may better account for these differences. The direction of the path coefficients for acculturation was the same in both samples. This was surprising given the differing patterns of acculturation and drinking behavior observed in a previous study (Hendershot et al., 2008). This may be a measurement error, considering that effects of acculturation do not always emerge when assessed with scales such as SL-ASIA. It may also be a result of different sampling techniques. In the study by Hendershot and colleagues (2008), regular alcohol use was an inclusion criterion. Meanwhile, students drank as few 1 drink per week in the current study

Limitations and Future directions

Despite potential implications, the research must be interpreted in light of several limitations. The results were also limited by the convenience sampling procedure and low base-rate of alcohol related problems. They may not be representative of community and/or clinical samples of APIs. Many of the participants in the current sample consumed no more than 5 drinks per week. Since protective behavioral strategies are meant to follow a harm reduction approach, they may not be relevant for these students. Another sample limitation was the age of participants. Most were college freshmen whom may still be developing in terms of acculturation and onset of drinking behavior. Future studies may focus recruitment on APIAs who frequently engage in drinking to more accurately test the model. While we were able to test the path model with specific APIA subgroups, this could only be done for Korean and Chinese Americans. Previous studies have found differing rates of alcohol use as well as different relationships of acculturation and alcohol use between different API subgroups (Lum et al., 2009). Thus future research should focus on recruitment and analyses among specific groups.

Interpretation of these findings is also tempered by measurement error, which is not controlled for in path analyses. Measurement error has unpredictable effects on estimation. In the current study, the manner of drinking scale had a reliability coefficient of .62. This was similar to another study examining PBS within a structural equation model (LaBrie et al., 2011). Future studies may correct for potential error by utilizing latent variables.

Finally, all outcomes were assessed by retrospective self-report and may not be reflective of actual drinking behavior. This limitation is tempered by efforts to ensure that surveys were confidential, thereby conforming to methods considered valid and reliable in evaluating alcohol use and behavior (Maisto, Connors, & Allen, 1995).

Implications

Despite these limitations, the current study provides insight into potential pathways towards alcohol use and related problems. Giving the unexpected findings on alcohol protective behavioral strategies in the current study, further research is warranted. While past studies have observed a harm reduction effect, it appears that some behaviors may actually be indicative of students at increased risk among APIAs. Additionally, the small effects of acculturation may indicate the need for researchers and clinicians alike to not assume any uniform effects or inadvertently base conclusions on stereotype (Hunt et al., 2004). Asian and Pacific Islanders represent a rapidly growing segment of the college student population, particularly on the west coast. Socialization experiences may vary from other students and also within this population. For example, a high percentage of APIAs were born outside of the United States, have parents born outside of the U.S., or some may be attending U.S. schools as international students (Hune, 2002). Continued research on this segment of U.S. college students acknowledges these unique experiences and is important for the design of effective and appropriate interventions.

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Table 1.

Descriptive Statistics for Acculturation and Alcohol Variables

Variable (Measure)	*Korean American* (n =115)	*Chinese American* (n= 91)	*Full Sample* (N = 449)
Acculturation (SL-ASIA)	2.81 (.65)	2.83 (.83)	3.04 (.73)
Peer Drinking (DDQ)	7.40 (7.87)	5.24 (6.60)	7.08 (7.69(
Stopping/Limiting Drinking (PBSS)	19.49 (8.48)	18.84 (8.26)	19.73 (7.84)
Manner of Drinking (PBSS)	13.88 (4.19)	15.12 (4.47)	14.48 (4.13)
Serious Harm Reduction (PBSS)	9.88 (4.25)	9.74 (4.63)	10.60 (4.15)
Weekly Drinking (DDQ)	7.78 (7.86)	4.91 (4.82)	6.90 (7.76)
Alcohol-Related Problems (RAPI)	5.16 (6.90)	3.38 (5.71)	4.48 (5.94)

Table 2.

Path Statistics for Full Sample

	Standardized	Unstandardized	*SE*
Acculturation <-> Peer Drinking	.19*	.15	.04
Acculturation -> Stopping/Limiting	.01	.01	.03
Acculturation -> Manner of Drinking	-.12*	-.05	.02
Acculturation -> Harm Reduction	.16*	.12	.04
Acculturation -> Weekly Drinks	.13*	.19	.04
Peer Drinks -> Stopping/Limiting	.02	.01	.02
Peer Drinks -> Manner of Drinking	-.09	-.03	.01
Peer Drinks -> Harm Reduction	.11*	.06	.02
Peer Drinks -> Weekly Drinks	.43*	.41	.04
Stopping/Limiting <-> Manner	.58*	.08	.01
Stopping/Limiting <-> Harm Reduction	.79*	.20	.01
Manner <-> Harm Reduction	.41*	.07	.01
Stopping/Limiting -> Weekly Drinks	.24*	.54	.10
Manner of Drinking -> Weekly Drinks	-.40*	-1.31	.15
Harm Reduction -> Alcohol Problems	.10*	.08	.03
Weekly Drinks -> Alcohol Problems	.51*	.23	.02

*$p < .05$

Table 3.

Path Statistics for Korean and Chinese Americans

	Standardized	Unstandardized	*SE*
Acculturation <-> Peer Drinking	*-.01*	*-.01*	*.07*
	*.38	.34	.10
Acculturation -> Stopping/Limiting	*-.03*	*-.02*	*.07*
	.04	.03	.07
Acculturation -> Manner of Drinking	**-.25*	*-.13*	*.05*
	-.04	-.01	.04
Acculturation -> Harm Reduction	**.19*	*.16*	*.08*
	*.21	.16	.08
Acculturation -> Weekly Drinks	*.14*	*.23*	*.13*
	.14	.16	.09
Peer Drinks -> Stopping/Limiting	*.05*	*.02*	*.04*
	-.03	-.01	.05
Peer Drinks -> Manner of Drinking	*.16*	*.05*	*.03*
	-.13	-.04	.04
Peer Drinks -> Harm Reduction	*.07*	*.04*	*.05*
	*.27	.16	.06
Peer Drinks -> Weekly Drinks	**.44*	*.43*	*.08*
	*.45	.40	.07
Stopping/Limiting <-> Manner	**.67*	*.11*	*.02*
	*.61	.09	.02
Stopping/Limiting <-> Harm Reduction	**.77*	*.22*	*.03*
	*.79	.24	.04
Manner <-> Harm Reduction	**.41*	*.08*	*.02*
	*.44	.09	.02
Stopping/Limiting -> Weekly Drinks	**.43*	*.94*	*.23*
	*.31	.61	.19
Manner of Drinking -> Weekly Drinks	**-.47*	*-1.55*	*.37*
	*-.46	-1.44	.30
Harm Reduction -> Alcohol Problems	*.05*	*.04*	*.07*
	.02	.01	.07
Weekly Drinks -> Alcohol Problems	**.56*	*.26*	*.04*
	*.48	.23	.04

Note: Values for Korean Americans are *italicized* at the top of each row Values for Chinese Americans are in standard font at the bottom of each row

*$p < .05$