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Alcohol Use and Living Environment: The Relations among College Hispanic Women

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Abstract

The purpose of the current study was to examine the relationship between living arrangements (living with family versus non-familial living arrangements) and drinking behaviors among female Hispanic college students. The study included 285 Hispanic college women (mean age = 18.75) who completed the measures of hazardous alcohol use, the ability to resist drinking, and the level of dependency on alcohol. Contrary to the hypotheses, results from female students living with family (n = 254) did not differ from students living in other arrangements (n = 31) in terms of drinking variables. Given the unexpected findings, further research for the Hispanic college women population should be conducted that include more students whom do not live with family and that considers acculturation in examining alcohol use variables.

Alcohol Use and Living Environment: The Relations among College Hispanic Women

Alcohol use is highly prevalent among students in colleges and universities. Studies show that young adults between the ages of 18-24 have the highest rates of alcohol use, as well as the greatest percentage for problem drinkers (Kandel & Logan, 1984; U.S. Department of Health and Human Services, 1997; Hingson et al., 2005). It has been found that occasional heavy drinking is higher in females in college than their counterparts who are not in college, with 34% for college females versus 29% for noncollege females (Monitoring the Future, 2006). This is of major concern since the greatest contributor to college student mortality is alcohol use (Hingson et al., 2005). Monitoring the Future (2006) also reports that there has been some closing of the gender gap in binge drinking as the rate among female college students has increased since 1998.

Alcohol use and alcohol-related behaviors appear to vary across gender. Although male students tend to report greater alcohol consumption than female students (Clements, 1999), female students are still at high risk for problem drinking because of biological differences in the metabolism of alcohol (Perkins, 2002). Changing gender norms in drinking that seem to promote drinking among women at greater levels than has been accepted historically, is another factor in encouraging female students to participate in high risk drinking (Rahav et al., 2006). This change in drinking norms among genders indicate that college women may be becoming more alike to their male counterparts in terms of alcohol use and alcohol-related problems, which is why further research needs to be conducted in college women alcohol use (Ham & Hope, 2003).

Regardless of gender differences, the heavy use of alcohol increases the risk of experiencing negative consequences. Binge drinking is defined as the consumption of at least five standard drinks in a row for men or four drinks in a row for women (Wechsler, Dowdall, Davenport, & Rimm, 1995). Binge drinkers were more likely than other students to experience

alcohol-related problems which may include health problems, hangover, doing something they regretted, missing class, falling behind in school work, forgetting where they were or what they did, arguing with friends, engaging in unplanned and/or unprotected sexual activity, getting hurt or injured, damaging property, and/or getting in trouble with law enforcement (Wechsler, Lee, Kuo, & Lee, 2000; Wechsler et al., 1995). It has been found that women and men may have differences in consequences. Specifically, it has been found that college men tend to have more consequences for self and others that involve public deviance, while college women tend to have consequences that are personal and relatively private (Perkins, 2002). Studies have also shown that alcohol use may be especially risky for women as research has indicated that alcohol use increases the risk of college women of being victims of sexual assault (Parks & Stewart, 2004; Corbin et al., 2001; Testa et al., 2006).

Ethnicity also appears to be a factor in alcohol use and alcohol-related behaviors. Alcohol consumption and binge drinking among Hispanic students may fall somewhere between alcohol consumption by White and African American students (Clements, 1999). McCabe (2002) examined collegiate risk factors for heavy episodic drinking among genders in a sample of 2,041 undergraduate students. The study found that being a Hispanic woman was associated with more frequent heavy episodic drinking when compared to being a Hispanic man. Thus, research investigating drinking among Hispanic female college students is warranted.

As alcohol consumption, especially heavy episodic drinking, has been shown to have negative effects for college students, it then becomes important to examine how various aspects of female Hispanic students' lives may affect their propensity to consume alcohol. One of the factors that may contribute to alcohol consumption is the living environment (Martin & Hoffman, 1993). Students living on-campus (i.e., fraternity houses, sorority houses, or residence

halls) may be more inclined to drink alcohol in general, engage in binge drinking, and have more alcohol-related negative consequences than those living with their parents (Martin & Hoffman, 1993). Wechsler et al. (2002) found that students living in substance-free dormitories or off campus with their parents had the lowest rates of binge drinking and negative secondhand effects of alcohol use when compared to individuals living in dormitories that allow drinking, fraternities, sororities, and those living off campus without parents. Students who wish to consume alcohol may seek living environments where alcohol consumption is accepted and standard. It may also be that students who live at home with their parents are more affected by parental expectations about drinking than about peer norms (Martin & Hoffman, 1993). Lower rates of drinking problems by those students who live with their parents provide evidence that proximal closeness to parents may be a protective factor for students in regards to alcohol consumption or problems (Ham & Hope, 2003). Alcohol use rates have a tendency to increase as students leave their homes and move to on-campus and off-campus college residences (Harford & Muthen, 2001).

The frequency of alcohol consumption and level of consumption is associated with drinking refusal self-efficacy, the ability to refuse alcohol in specific situations (Oei & Morawska, 2004; Lee & Oei, 1993). Lee and Oei (1993) found that high frequency consumption was related to low drinking refusal self-efficacy, and that those with lower drinking refusal self-efficacy drank more frequently when given the opportunity to drink. Living environment may play a role in drinking refusal self-efficacy, since college students' drinking patterns are still influenced by parents (Turrisi, Weirma, Hughes, 2000; Wood, Read, Mitchell, & Brand, 2004; Sessa, 2005). Living with one's parents may increase drinking refusal self-efficacy, thereby reducing alcohol consumption (Oei & Morawska, 2004).

Aspects of the Hispanic culture may be particularly relevant in the association that living environment has with drinking behavior and drinking refusal self-efficacy among female Hispanic college students. For instance, the Hispanic culture has a firm grasp of *familismo*. Familismo includes the need to preserve strong family ties, the expectation that the family will be the primary source of instrumental and emotional support, the feeling of loyalty to the family, and that family comes first over individual needs and desires (Negy & Woods, 1992). This is of particular importance because Hispanic familismo may explain the lower rate of alcohol consumption among college Hispanic women than Anglo-American female students (Halgunseth, Ispa, & Rudy, 2006). Cross-cultural studies have shown that Latino parents are more protective and monitor their children more frequently than non-Latino parents (Halgunseth, Ispa, & Rudy, 2006). Interestingly, Caetano (1987) found that there was a relationship between acculturation and alcohol use. Women whose families had resided in the United States longer, had drinking patterns that were comparable to those of Anglo-American women. Thus, the impact of living with the family versus on campus may be even more powerful for Hispanic women than women of other ethnic backgrounds due to greater family involvement and monitoring.

There is little research investigating the association between living environment and drinking-related behaviors among college women, and no published studies could be found investigating this topic among Hispanic college women. Therefore, given the need to study drinking behaviors among female Hispanic college students and evidence that the influence of living arrangement on drinking behaviors could be particularly relevant for this population, the purpose of the current study was to examine the relationship between living arrangements and drinking behaviors among female Hispanic college students. The study was strengthened by

including instruments assessing three important aspects of drinking behavior: 1) hazardous alcohol use, 2) the ability to resist drinking, and 3) the level of dependency on alcohol. It was hypothesized that female Hispanic college students would engage in less high risk drinking when living at home with parents and/or relatives, than those with non-familial living arrangements (i.e., living alone or with roommates on-campus or off-campus). In addition, it was hypothesized that the students would report lower levels of alcohol dependency if living at home with parents and/or relatives than those who did not. It was also hypothesized that college Hispanic women would report a greater ability to resist alcohol if they lived at home with parents and/or relatives compared to those students with non-familial living arrangements.

Method

Participants

Participants were 637 students recruited from the psychology research pool at Florida International University for a study investigating cognitions and drinking behaviors in college students. Given that the current study focused only on Hispanic women, a sub-sample of participants from the larger study was utilized for the current study. The sample for this study originally included 305 Hispanic women but based on study objectives students who selected own home (n= 15) and other (n= 5) for the living situation (described below) were excluded, leaving a final sample of 285 Hispanic women with a mean age of 18.75 (SD = 1.38). The majority of students participating were freshman (72.3%), 12.4% were sophomores, 9.5% were juniors, and 5.3 % were seniors. Of the 285 students, 5.3% of students lived in a residence hall, 5.6% lived in an apartment/rented unit, 85.3% lived with parents, and 3.9% lived with family other than parents. The majority of students (89.1%) lived with family, and 10.9% did not live

with family. See Table 1 for demographic summary. Students who volunteered to participate met in groups with the investigator or research assistant to complete the battery of questionnaires.

Materials

One item from the demographic sheet assessing the participants' current living situation was used to assess the participants' current living situation. The response options were residence hall, apartment/rented unit, fraternity/sorority house, own home, live with parents, live with family other than parents, or other. Living status was then separated into two categories: those living with parents and/or other family members and those living in non-familial living arrangements. The category of living with family members consisted of those that chose to live with parents or live with family other than parents. The category of living in non-familial living arrangements consisted of residence hall, apartment/rented unit, and fraternity/ sorority house. Those that chose own home or other were excluded as their status could not be determined.

Alcohol Use Disorder Identification Test (AUDIT; Babor, de la Fuente, Saunders, & Monteiro, 2001). This measure is a 10-item questionnaire that assesses hazardous drinking. The questionnaire includes three items related to hazardous alcohol use, three items related to dependence symptoms, and four items assessing harmful alcohol use. Each item has a score ranging from 0 to 4 and total scores of 8 or more is suggestive of hazardous alcohol use (Babor, de la Fuente, Saunders, & Monteiro, 2001). However, lowering the AUDIT cutoff to 5 has been recommended for college students and women (Reinhart & Allen, 2007). The AUDIT has strong evidence of internal reliability (Chronbach's $\alpha > .80$; Fleming, Barry, & MacDonald, 1991). This measure has shown good reliability and validity among college students (Chronbach's $\alpha > .78$ for alcohol consumption; Chronbach's $\alpha > .84$ for drinking problems; Chronbach's $\alpha > .94$ for entire scale; O'Hare & Sherrer, 1999).

Short Alcohol Dependence Data questionnaire (SADD; Raistrick, Dunbar, & Davidson, 1983). This measure is a 15-item measure that assesses the range of current state alcohol dependence (i.e., behavioral, subjective, and psychobiological changes associated with alcohol dependence). Items were answered by checking off one of the following and scored as follows: never= 0, sometimes=1, often= 2, or nearly always= 3. A 45 is the maximum possible score and totals ranging from 1-9 are low dependence, 10-19 are medium dependence, and 20 or greater is high dependence (Raistrick, Dunbar, & Davidson, 1983). Concurrent validity was demonstrated by the SADD's association with the Severity of Alcohol Dependence Questionnaire (SADQ; Stockwell et. al., 1979) of rho=.83, $p > .01$ (Davidson & Raistrick, 1986). There was a significant correlation between the Edinburgh Alcohol Dependence Scale (EADS; Edwards & Gross, 1976), which is a standardized interview based on criteria of alcohol dependence and its psychometric properties, and SADD scores (rho=.51, $p > .01$; Davidson & Raistrick, 1986). The SADD has evidence of good split-half reliability ($r = .87$; Raistrick, Dunbar, & Davidson, 1983).

Drinking Refusal Self Efficacy Questionnaire, modified for heavy drinking (DRSEQ; Young, Oei, & Crook, 1991). The DRSEQ is a 31-item self-report instrument used to assess participants' beliefs about the ability to refuse alcohol across situations. This DRSEQ was modified by Tran (personal communication) to assess beliefs about refusing *heavy drinking*, rather than drinking at all. The original version was intended for individuals with alcohol dependence to assess self-efficacy for avoiding relapse, while the modified version is more relevant to college student drinking behavior. "Heavy drinking" is defined as "5 or more drinks per occasion for men and 4 or more drinks per occasion for women." Each question allows participants to describe how much they could resist drinking in each case with ratings of 1 ("never resist drinking heavily in that situation"), 2 ("rarely resist drinking heavily in that

situation"), 3 ("frequently resist drinking heavily in that situation"), and 4 ("almost always resist drinking heavily in that situation") in the revised version. The factors of the DRSEQ are social pressure self-efficacy (12 items), emotional relief self-efficacy (11 items), and opportunistic self-efficacy (8 items). Higher scores mean that there is stronger confidence in resisting alcohol (Young, Oei, & Crook, 1991). In the original DRSEQ, the three factors have strong evidence of test-retest reliability (range from r = 0.84-0.93) and internal consistency (range from α= 0.87-0.94; Oei & Young, 2005). When the scores of the three factors of the DRSEQ were combined with the Eysenck Personality Questionnaire- Revised Brief Form (EPQ-R) scores (Eysenck, Eysenck & Barrett, 1985), Michigan Alcoholism Screening Test (MAST) score (Selzer, 1971), and distress and performance ratings of the Scale for Interpersonal Behavior (SIB; Arrindell, Sanderman, Van der Mishen, Van der Ende, & Mersh, 1988) to predict consumption, 54.6% (R^2= .5464) of the variance in alcohol consumption was accounted for by the four significant predictors (Young, Oei, & Crook, 1991). Further, DRSEQ was found to correctly discriminate 67% of subjects into nonproblem or problem drinking groups (Young, Oei, & Crook, 1991).

Procedures

Participants who volunteered for research participation were given the opportunity to read the informed consent and ask the investigator questions about the study prior to signing the informed consent. After reading and signing the informed consent forms, participants were asked to complete the above mentioned questionnaire battery. Participants received class credit for participating in the study.

Data Analytic Plan

First, a Pearson's Chi-square test with living status (living with parents/relatives vs. living alone or with a roommate on/off campus) and drinking risk status (high vs. low risk based

on AUDIT cutoff score of 5; Reinert & Allen, 2007) was conducted. Second, a *t*-test with living status and the AUDIT total score was conducted. To test the second hypothesis, a *t*-test with living status and the SADD total score was conducted. To test the third hypothesis, a *t*-test with living status and DRSEQ total score was conducted.

Results

To test the hypothesis that female Hispanic college students would engage in less high risk drinking when living at home with parents and/or relatives, than those with non-familial living arrangements (i.e., living alone or with roommates on-campus or off-campus), a Pearson's Chi-square test with living status (living with parents/relatives vs. living alone or with a roommate on/off campus) and drinking risk status (high vs. low risk based on AUDIT cutoff score of 5; Reinert & Allen, 2007) was conducted. This test did not reveal a significant pattern of differences in living arrangements and drinking risk status, $X^2(1, N= 267) = 1.04$, $p= .31$ (see Table 2). Results indicated that contrary to the hypothesis, participants living with family were just as likely to have the same drinking risk status as those that lived in non-familial arrangements. Of the 237 students living with family, 164 were low risk drinkers and 73 were high risk drinkers based on the AUDIT. Of the 30 students not living with family, 18 had low risk drinking status, and 2 had high risk drinking status. In addition, a *t*-test with living status and the AUDIT total score was conducted. The results were not statistically significant $t(265) = 1.50$, $p= .14$, indicating that the female Hispanic students residing with family members reported similar levels of hazardous drinking as did students not living with family members. See Table 3 for means and standard deviations for each living status group.

To test the hypothesis that the students would report lower levels of alcohol dependency if living at home with parents and/or relatives than those who did not, a *t*-test with living status

and the SADD total score was conducted. The test did not reveal significant differences in mean levels of alcohol dependency for type of living arrangement $t(264)= -1.20$, $p= .85$. Results indicated that contrary to the hypothesis, students' level of alcohol dependency was not related to living arrangement (see Table 3).

To test the hypothesis that college Hispanic women would report a greater ability to resist alcohol if they live at home with parents and/or relatives compared to those students with non-familial living arrangements, a *t*-test with living status and DRSEQ total score was conducted. Contrary to the hypothesis, results revealed that Hispanic female students living with family reported similar levels of drinking refusal self-efficacy as did Hispanic female students who had non-familial living arrangements, $t(275)= -.42$, $p= .67$ (see Table 3).

Discussion

Alcohol use is highly prevalent in college students and varies across genders and ethnicities. The purpose of the current study was to examine the relationship between living arrangements and drinking behaviors among female Hispanic college students. The present findings fail to support that female Hispanic college students would engage in less high risk drinking when living at home with parents and/or relatives, than those with non-familial living arrangements (i.e., living alone or with roommates on-campus or off-campus). Contrary to previous findings, results indicated similar levels of risky drinking in students living with family and students not living with family. It is possible that living arrangements do not solely influence one's propensity to engage in risky drinking for college Hispanic women; it is also level of acculturation. Previous research has failed to reach a consensus on this matter, and therefore, further study is necessary (Caetano & Clark, 2003; De La Rosa, 2002; Epstein et. al., 2001).

In addition, it was hypothesized that the students would report lower levels of alcohol dependency if living at home with parents and/or relatives than those who did not. The present findings fail to support this hypothesis, in that they reveal similar levels of alcohol dependency for those living with family and those not living with family. It is possible that levels of alcohol dependency are more correlated to genetic predisposition (Ratsma, Van Der Stelt, & Gunning, 2002; Haber, Jacob, & Heath, 2005; Heath, et. al., 1997) than to environmental factors in college students.

The hypothesis that college Hispanic women would report a greater ability to resist alcohol if they live at home with parents and/or relatives compared to those students with non-familial living arrangements was not supported by the current findings. Alternatively, the values established through familsimo may be so deeply established that Hispanic women behave accordingly, regardless of environmental factors. Although no empirical research conducted was found to answer this question, the values of familismo are deeply imbedded in Hispanic children from an early age (Halgunseth, Ispa, & Rudy, 2006). Parent-child relationships can be influenced by three patterns of parent and child acculturation rates: consonant acculturation, dissonant acculturation, and selective acculturation (Portes & Rumbaut, 1996). The pattern of consonant acculturation is associated with family cohesion in immigrant families with adolescent children, as parents and children learn the new language and culture at the same pace. The pattern of dissonant acculturation involves childrens' value of the native culture diminishing, since children learn the new language and culture at a faster pace than their parents. However, the patterns of selective acculturation involves the children learning the new culture, yet retaining elements of their original culture, and are considered bicultural (Portes & Rumbaut 1996). These patterns could be an influence for the drinking habits of Hispanic college women, as acculturation has

been shown to cause a decline in some aspects of familismo (Gil & Vega, 1996; Procidano & Rogler, 1989). The current study did not assess acculturation.

A limitation in the current study was that the study contained only 30 participants that reported non-familial living arrangements and 237 participants living with family for the AUDIT. There were also only 30 participants for those not living with family and 247 participants living with family for the DRSEQ, and 31 participants not living with family and 247 participants living with family for the SADD. Due to the small size of the non-familial group, it is possible that there was not enough power to find significant differences. It is also unclear how a nationally representative sample of Hispanic college women could have produced different findings. Another limitation is lack of information on how long students had been living on their own and further analysis revealed that there was also a significant difference in age among participants not living with family (M= 19.61) and those living with family (M= 18.65). It is also unclear if changing the cutoff score for the AUDIT from 5 to 6 could have produced different findings as some researchers have recommended an AUDIT score of 6 or greater rather than 5 or greater. For instance, Kokotailo and colleagues (2004) found that the AUDIT demonstrated a sensitivity of 91.0% and a specificity of 60.0% in the detection of high-risk drinkers among college students.

The Hispanic population is currently the fastest growing ethnic/racial minority group in the United States. Little research has been done in regards to the changes that occur in this population through acculturation, particularly in regards to drinking among Hispanic women. It has been proposed that acculturation to the Anglo culture has resulted in changes in drinking in Hispanic women (Trevino, 1975; Page, Rio, Sweeney, & McKay, 1985; Zamboanga, Rafaelli, & Horton, 2006), and that higher educated women have lower abstention than the less educated

ones (Graves, 1967). Therefore, further research should be done with level of acculturation in Hispanic college women, as well as with specific countries of origin and current region. As the Hispanic "grouping" represents individuals from many different backgrounds, it is important to consider additional aspects of the individual's culture and current environment in the study of drinking behaviors. The importance of these studies would be to help with intervention efforts aimed at stopping heavy drinking habits and avoid negative consequences as a result of drinking, as well as programs to continue familial support on universities campuses, for Hispanic college women.

References

Arrindell, W. A., Sanderman, R., Van der Molen, H., Van der Ende, J., & Mersh P. (1988). The structure of assertiveness: A confirmatory approach. *Behavioral Research and Therapy, 26*, 337-339.

Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). *The Alcohol Use Identification Test: Guidelines for use in Primary Care*. World Health Organization.

Caetano, R. (1987). Acculturation and drinking patterns among U.S. Hispanics. *British Journal of Addiction, 82*, 789-799.

Caetano, R., Clark, C. L., (2003). Acculturation, alcohol consumption, smoking, and drug use among Hispanics. In K.M Chun, P.B. Organista, & G. Marin (Eds.), *Acculturation: Advances in theory, measurement, and applied research* (pp.223-229). Washington, D.C: American Psychological Association.

Clements, R. (1999). Prevalence of alcohol-use disorders and alcohol-related problems in a college student sample. *Journal of American College Health*, *48(3)*, 111-118.

Corbin, W. R., Bernat, J. A., Calhoun, K. S., McNair, L. D., & Seals, K. L. (2001). The role of alcohol expectancies and alcohol consumption among sexually victimized and nonvictimized college women. *Journal of Interpersonal Violence, 16*, 297-311.

Davidson, R., & Raistrick, D., (1986). The validity of the Short Alcohol Dependence Data (SADD) Questionnaire: a short assessment of alcohol dependence. *British Journal of Addiction, 81*, 217-222.

De La Rosa, M. (2002). Acculturation and Latino adolescents' substance use: A research agenda for the future. *Substance Use and Misuse, 37*, 429-456.

Edwards, G. & Gross, M. M. (1976). Alcohol dependence provisional description of a clinical syndrome. *British Medical Journal, 4*, 1038-1061.

Epstein, J. A., Botvin, G.J., Diaz, T. (2001). Linguistic acculturation associated with higher marijuana and polydrug use among Hispanic adolescents. *Substance Use and Misuse, 36*, 477-499.

Eysenck, S. B. G., Eysenck, H.J., & Barrett, P. (1985). A revised version of the psychoticism scale. *Personality and Industrial Differences, 6*, 21-29.

Fleming, M. F., Barry, K. L, & MacDonald, R. (1991). The alcohol use disorders identification test (AUDIT) in a college sample. *The International Journal of the Addictions, 26*, 1173-1185.

Gil, A. G., & Vega, W. A. (1996). Two different worlds: Acculturation stress and adaptation among Cuban and Nicaraguan families. *Journal of Social and Personal Relationships, 13*, 425-456.

Haber, J. R., Theodore, J., & Heath, A. C. (2005). Paternal alcoholism and offspring conduct disorder: Evidence for the 'common genes' hypothesis. *Twin Research and Human Genetics, 8*, 120-131.

Halguneseth, L. C., Ispa, J. M., & Rudy, D. (2006). Parental control in Latino families: An integrated review of the literature. *Child Development, 77*, 1282-1297.

Ham, L. S., & Hope, D. A. (2003). College students and problematic drinking; A review of the literature. *Clinical Psychology Review*, 23, 719-759.

Harford, T. C., & Muthen, B. O. (2001). Alcohol use among college students: the effects of prior problem behaviors and change of residence. *Journal of Studies on Alcohol, 62*, 306-312.

Heath, A. C., Bucholz, K. K., Madden, P. A. F., Dinwiddie, S. H., Slutske, W. S., Bierut, L. J., et. al. (1997). Genetic and environmental contributions to alcohol dependence risk in a national twin sample: consistency of findings in women and men. *Psychological Medicine, 27*, 1381-1396.

Hingson, R. W., Heeren, T., Winter M., & Wechsler, H. (2005).Magnitude of alcohol-related morbidity and mortality among U.S. college age students 18–24: Changes from 1998–2001, *Annual Review of Public Health*, *26*, 259–279.

Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2006). *Monitoring the Future national survey results on drug use, 1975-2005: Volume II, College students and adults ages 19-45* (NIH Publication No. 06-5884). Bethesda, MD: National Institute on Drug Abuse.

Kandel, D., & Logan, J. (1984). Patterns of drug use from adolescence to young adulthood: Periods of risk for initiation, continued use, and discontinuation. *American Journal of Public Health*, *74*, 660-666.

Kokotailo, P. K., Egan, J., Gangon, R., Brown, D., Mundt, M., & Fleming, M. (2004). Validity of the Alcohol Use Disorders Identification Test in College Students. *Alcoholism: Clinical and Experimental Research, 28*, 914-920.

Lee, N. K., & Oei, T. P. S. (1993). The importance of alcohol expectancies and drinking refusal self-efficacy in the quantity and frequency of alcohol consumption. *Journal of Substance Abuse, 5*, 379-390.

Martin, C. M., & Hoffman, M. A., (1993). Alcohol expectancies, living environment, peer influence, and gender: A model of college-student drinking. *Journal of College Student Development, 34*, 206-211.

McCabe, S. E. (2002). Gender differences in collegiate risk factors for heavy episodic drinking. *Journal of Studies on Alcohol, 63*, 49-56.

Negy, C., & Woods, D. (1992). The importance of acculturation in understanding research with Hispanic-Americans. *Hispanic Journal of Behavioral Sciences, 14*, 224-247.

Oei, T. P. S., Morawska, A. (2004). A cognitive model of binge drinking: the influence of alcohol expectancies and drinking refusal self-efficacy. *Addictive Behaviors, 29*, 159-179.

Oei, T. P. S., Hasking, P. A., & Young, R. M. (2005). Drinking refusal self-efficacy questionnaire- revised (DRSEQ): a new factor structure with confirmatory factor analysis. *Drug and Alcohol Dependence, 78*, 297-307.

O'Hare, T., & Sherrer, M. V. (1999). Validating the Alcohol Use Disorder Identification Test with college first-offenders. *Journal of Substance Abuse Treatment, 17*, 113-119.

Parks, K. A., & Fals-Stewart, W. (2004). The temporal relationship between college women's alcohol consumption and victimization experiences. *Alcoholism: Clinical and Experimental Research, 28*, 625-629.

Perkins, H. W. (2002). Surveying the damage; A review of research on consequences of alcohol misuse in college populations. *Journal of Studies on Alcohol, S14*, 91-100.

Portes, A., & Rumbaut, R. (1996). *Immigrant American: A portrait* (2nd. Ed.). Berkeley: University of California Press.

Procidano, M., & Rogler, L. H. (1989). Homogamous assortative mating among Puerto Rican families: Intergenerational processes and the migration experience. *Behavior Genetics, 19*, 343-354.

Rahav, G., Wilsnack, R., Bloomfield, K., Gmel, G., & Kuntsche, S. (2006). The influence of societal level factors on men's and women's alcohol consumption and alcohol problems. *Alcohol and Alcoholism, 41*, i47-i55.

Raistrick, D., Geoff, D, & Davidson, R. (1983). Development of a questionnaire to measure alcohol dependence. *British Journal of Addiction, 78*, 89-95.

Ratsma, J. E., Van Der Stelt, O., & Gunning, W. B. (2002). Neurochemical markers of alcoholism vulnerability in humans. *Alcohol & Alcoholism, 37*, 522-533.

Reinert, D. F., & Allen, J. P. (2007). The Alcohol Use Disorders Identification Test: An Update of Research Findings. *Alcoholism: Clinical and Experimental Research, 31*, 185-199.

Rogler, L. H., & Santana Cooney, R. (1984). *Puerto Rican families in New York City: intergenerational processes*. Maplewood, NJ: Waterfront.

Selzer, M. L. (1971). The Michigan Alcoholism Screening Test (MAST). The quest for a new diagnostic instrument. *American Journal of Psychiatry, 127*, 1653-1658.

Sessa, F. M. (2005). The influence of perceived parenting on substance use during the transition to college: A comparison of male residential and commuter students. *Journal of College Student Development, 46,* 62-74.

Stockwell, T., Hodgson, R., Edwards, G., Taylor, C., & Rankin, H. (1979). The development of a questionnaire to measure severity of alcohol dependence. *British Journal of Addiction, 74*, 79-87.

Testa, M., Vanzile-Tamsen, C., Livingston, J. A., & Buddie, A. M. (2006). The role of women's alcohol consumption in managing sexual intimacy and sexual safety motives. *Journal of Studies on Alcohol*, 67, 665-674.

Turrisi, R., Wiersma, K. A., & Hughes, K. K. (2000). Binge-drinking-related consequences in college students: role of drinking beliefs and mother-teen communications. *Psychology of Addictive Behaviors, 14*, 342-355.

U.S. Department of Health of Human Services (1997). *Ninth special report to the U.S. congress on alcohol and health*. Washington, DC: U.S. Government Printing Office.

Wechsler, H., Dowdall, G., Davenport, A., & Castillo, S. (1995) Correlates of college student binge drinking. *American Journal of Public Health, 85*, 921-926.

Wechsler, H., Dowdall, G., Davenport, A., & Rimm, E. B. (1995). A gender-specific measure of binge drinking among college students. *American Journal of Public Health, 85*, 982-985.

Wechsler, H., Lee, J. E., Kuo, M., & Lee, H. (2000). College binge drinking in s: A continuing problem. *Journal of American College Health*, 48, 199-210.

Wechsler, H., Lee, J. E., Nelson, F. N., & Kuo, M. (2002) Underage college students' drinking behavior, access to alcohol, and their influence of deterrence policies. *Journal of American College Health, 50*, 223-236.

Wood, M. D., Read, J. P., Mitchell, R. E., & Brand, N. H. (2004). Do parents still matter? Parent and peer influences on alcohol involvement among recent high school graduates. *Psychology of Addictive Behaviors, 18,* 19-30.

Young, M. D., Oei, T. P. S., & Crook, G. M. (1991). Development of a drinking self-efficacy questionnaire. *Journal of Psychopathology and Behavioral Assessment, 13*, 1-15.

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*, 2188-2198.

Table 1.

Summary of Sample Demographic and Study Variables (N = 285).

Variable	Frequencies		
Age		*M*= 18.75	*SD*=1.38
Year in college			
Freshman	206 (72.3%)		
Sophomore	35 (12.3%)		
Junior	27 (9.5%)		
Senior	15 (5.3%)		
Missing	2 (0.7%)		
Living Arrangements			
Residence hall **(NF)**	15 (5.3%)		
Apartment/rented unit **(NF)**	16 (5.6%)		
Live with parents **(F)**	243 (85.3%)		
Live with family other than parents **(F)**	11 (3.9%)		
Drinking risk status based on AUDIT			
High risk	85 (31.8%)		
Low risk	182 (68.2%)		
AUDIT		*M*=3.88	*SD*= 3.73
SADD		*M*=3.86	*SD*= 4.59
DRSEQ		*M*=106.59	*SD*= 16.93

Note. NF = Coded as does not live with family member(s) for the purposes of data analyses. F = Coded as lives with family member(s) for the purposes of data analyses. AUDIT= alcohol use disorder identification test. SADD= short alcohol dependence data questionnaire. DRSEQ= drinking refusal self efficacy questionnaire.

Table 2.

Chi-Square for Type of Drinking Risk and Type of Living Arrangement.

Level of Drinking Risk	Type of living arrangements		
	Not living with family	Living with family	Total
Low risk	18	164	182
High risk	12	73	85
Total	30	237	267

Note. Level of drinking risk based on a cutoff of 5 on the Alcohol Use Disorder Identification Test.

Table 3

Hazardous Drinking, Alcohol Dependency, and Drinking Refusal Self-Efficacy Levels by Living Arrangement.

	Living Arrangement Status	
	Not living with family (*N*= 31)[a]	Living with family (*N*= 247)[b]
AUDIT total score	*M*=4.83 (*SD*=.74)	*M*=3.76 (*SD*= .24)
SADD total score	*M*= 3.71 (*SD*= 4.22)	*M*= 3.88 (*SD*= 4.64)
DRSEQ total score	*M*= 105.37 (*SD*= 13.47)	*M*= 106.74 (*SD*= 17.32)

Note. [a]*N* = 30 for the AUDIT and DRSEQ. [b]*N* = 237 for the AUDIT and *N* = 235 for the SADD. AUDIT = Alcohol Use Disorder Identification Test. SADD = Short Alcohol Dependence Data Questionnaire. DRSEQ = Drinking Refusal Self-Efficacy Questionnaire.