The Psychosociocultural Factors That Influence Chinese American College Students’ Alcohol Consumption

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Abstract

Chinese-American college students may experience distress from the model minority stereotype, which places pressure on Asian Americans to achieve high academic and occupational success, and may conceal alcohol consumption behaviors. Peer pressure to drink on college campuses may place Chinese-American students at risk for problematic drinking behaviors that serve as a means of coping with their distress. The purpose of this survey study is to examine the psychosociocultural factors that influence Chinese-American college students’ alcohol consumption. Specifically the influence of depression, collective self esteem, tension reduction, peer pressure to drink, internalization of the model minority stereotype, cultural congruity, and university environment on alcohol consumption patterns will be examined by gender. Findings will provide university counselors and campus organizations identify positive coping strategies and culturally competent services to Chinese-American students regarding their alcohol use. Specific directions will be provided for prevention. Implications for future research will also be addressed.
The Psychosociocultural Factors That Influence Chinese American College Students’ Alcohol Consumption

The Asian-American population within the United States has grown significantly during the 21st century. The Asian population increased by 13%, in a single decade from 248.7 million in 1990 to 281.4 million in 2000 (US Census Bureau, 2000). Interestingly enough, Los Angeles was ranked number two in cities with the largest Asian population (US Census Bureau, 2000). As of 2000, the U.S. Census accounted up to 2.9 million Americans with a Chinese ancestry background. According to the 2004 data set collected on the American Community Survey (United States Census Bureau), Chinese Americans account for 3,336,966 people in the nation or 1.2% of the U.S. population.

Chinese Americans have contributed significantly to our nation. During the 19th century, the Chinese helped build the western half of the transcontinental railroad and have influenced our education, science, and technology sectors (http://www.chssc.org/history/resources). Respectively, Chinese Americans have also suffered severe discrimination by different groups such as the United States with the Chinese Exclusion Act of 1882 (http://www.chssc.org/history/resources). It appears that the minority status of this particular ethnic group in the United States has dominated certain areas in California and will most likely dominate other ethnic groups in other areas in the near future. Therefore, it is extremely crucial to address the specific problems and needs of Chinese-Americans.

Asian Americans are viewed as an exemplary group of individuals who achieve education, economic, and social mobility (Crystal, 1989). Education is therefore highly valued because it is regarded to many as a means of upward mobility within the Asian American culture (Louie, 2004). A young adult, particularly an individual in college undergoing the period of
adolescence, is susceptible to abuse substances such as alcohol (Chung, 2002). Despite their substance abuse, Chinese Americans outperform other ethnic groups as indicated with their high numbers of representation in education. As a result of this stereotype, Asian Americans are perceived as being insusceptible from social and psychological problems. Thus, individuals may inhibit themselves as well as their family members from seeking help because problems may be covered up as a result of unrealistic academic pressures that are placed on students by their parents. For example: Chinese American college students may turn to alcohol in order to cope with the distress they feel from the academic pressures at school and home to succeed and maintain and uphold the model minority stereotype.

Although there is not much representation of Asian-Americans in treatment centers, it does not mean that this minority group experiences fewer alcohol related problems than other ethnic groups. In many studies, Asian Pacific Islander (API) Americans are presumed to be one entity, therefore undermining the variances of alcohol consumption among Asian American subgroups (Otsuki, 2003). Programs targeted at youth must take into account that Asian Americans are not, as many people erroneously presume, a homogenous group (Otsuki, 2003). Otsuki (2003) indicated that diversity plays a large role as a result of the different histories, social activities, and culture that distinguish the different Asian American groups. Asian Americans would gain tremendously from treatment centers. In fact, a few studies have investigated the benefits Asian Americans receive from these types of programs and have proven that they would be more prone to utilize treatment facilities if bilingual and bicultural personnel were available (Zane & Kim, 1994).

College is a period of transition because for the most part, college students live away from home, lack parental authority, and engage in new as well as risky behaviors through the
influences of their peers and environment. Studies have shown that the rate of heavy drinking among college students after high school surmounts the alcohol use among their noncollege peers (Johnston et al, 2000). So & Wong (2006) found that there was a 94.5% lifetime prevalence and a 78.6% current prevalence of alcohol consumption among Asian American college students, a startling rate. These numbers show that alcohol consumption among Asian American college students are much higher than expected and exceed the national sample when compared to other groups (So & Wong, 2006). Therefore, it is apparent that Asian American college students are finding ways to cope positively and negatively, however more are finding negative coping mechanisms such as alcohol.

Research has indicated that more stress correlates to lower grades among Chinese American youth (Jose & Huntsinger, 2005). In addition, Chinese American youth experience more stress from their everyday activities caused by academic pressures from their parents (Jose & Huntsinger, 2005). Another issue is the factor contributing to the rise of alcohol consumption among Asian-American youth. Asians are typically the least likely ethnic group to enroll in alcohol treatment centers (O’Hare, 1995). Therefore, serious issues such as alcohol dependency problems are undermined because there has not been much information collected regarding the utilization and effectiveness of treating alcoholism among the different Asian sub groups among groups such as Chinese-, Japanese-, Korean-, and Filipino-Americans (Makimoto, 1998).

Purpose of the Study

This study will examine the psychological, social, and cultural factors that influence alcohol consumption patterns among Chinese American undergraduate students at a four year university on the west coast. Using a psychosociocultural framework (Gloria & Rodriguez, 2000), this comprehensive meta theory aims to thoroughly address context specific needs of the
Chinese American ethnic group. Gloria and Rodriguez (2000) constructed the psychosociocultural perspective in order to better assist Latino/a students in the educational system by investigating psychological concerns (e.g. issues that students presently experience), social support systems (e.g. faculty members and family), cultural factors (e.g. internalization of an individuals’ personal ethnic identity), as well as environmental influences (e.g. the university environments and its’ cultural fit to individual students). This framework however will be used as a construct for this study and applied to the ethnic group of Chinese Americans in order to assess and discover the needs of these students. The three dimensions of the framework evaluate different themes: the psychological dimension examines depression, collective self esteem, and tension reduction, the social dimension examines the internalization of the model minority stereotype and peer pressure, and the cultural dimension examines cultural congruity and perception of the university environment.

By considering all three of these factors and understanding how all three are interdependent upon one another, the research collected will enable counselors to consider a variety of influences that cause Chinese American college students to drink alcohol and develop a variety of culturally competent resources specially designed to assist Chinese American students academically, psychologically, socially, culturally to their university, family, and peers. The findings will also enable scholars/researchers to conduct further research on other ethnic groups that tailor and address the special needs of all Asian-American students who have experienced or are currently experiencing the negative effects of alcohol in their livelihoods.

Although Chinese-Americans have been found to have the lowest percentage of both lifetime drinkers and heavy drinkers (Varma & Siris, 1996), it is important to recognize the consumption patterns in order to provide support for students who are engaged in or who are at
risk for this activity. Understanding the factors that contribute to alcohol consumption is imperative. Furthermore, developing techniques to ease tension and stress from peers, family, and school at the university level will help students who are struggling to succeed academically by means of identifying positive mechanisms of coping to stress and other issues Asian-American, or more specifically Chinese American, undergraduate college students face.

In order to obtain a better understanding of the psychosociocultural factors that influence Chinese American college students to drink, the following research questions were investigated:

R1: What are the alcohol consumption patterns among Chinese-Americans college students?

R2: What are the differences in alcohol consumption by gender among Chinese American college students?

R3: To what extent do the psychological (depression, collective self esteem, tension reduction), social (internalization of the model minority stereotype and peer pressure), and cultural (cultural congruity, university environment) factors affect alcohol consumption among Chinese American college students?

R4: What are the interrelations between the study’s variables and criterion?

Review of the Literature

Not much research has been conducted on studying the factors that influence Asian American college students’ alcohol consumption. This study is significant because it uses the PSC framework and enables researchers to identify the level of alcohol consumption among Chinese Americans at a four year institution and understand the interrelationships among the psychological, social, and cultural variables. These findings will provide university counselors
the information necessary to create effective preventive programs that are specific to Chinese American college students’ psychological needs and their coping.

The literature review will examine alcohol predictor variables including depression, collective self esteem, tension reduction, internalization of the model minority stereotype, peer pressure, cultural congruity, and university perception in relation to Chinese-American college students’ alcohol consumption.

**Psychological Factors**

**Depression**

Mercado (2000) explains that culture influences alcohol usage among Asian American adolescents. For example, within the Asian American culture, Asian American parents impose a great amount of pressures onto their children because it is expected that Asian American children perform well in school. Since education is extremely valued within the culture and maintaining a good education brings honor to a family (Yagi & Oh, 1995), Asian American children may resort to consuming alcohol as a means to manage their pressures if they do not achieve academically in their educational endeavors (Bhattacharya, 1998).

Although Asian Americans are typically portrayed as the “model minority,” studies have proposed that Asian Americans suffer from depressive symptoms (Ying, 1995). Many college student specific studies have reported that Asian Americans disproportionately suffer from depression as opposed to their White counterparts (Otsuki, 2003). In Otsuki’s study (2003), depression was a probable component to predicting an individual’s alcohol consumption and that females were more vulnerable to experimenting with alcohol.

Another predictor of depression in Chinese-American adolescents depressive symptoms is influenced by the role of the parents. By studying the parents depressive symptoms, an
adolescents depressive symptoms may also be predicted (Kim & Ge, 2000). In addition, the Asian American culture is also linked to that of harsh parental discipline. Adolescents who report experiencing harsh parental discipline are more prone to suffer from depressive symptoms (Kim & Ge, 2000). Therefore students may consume alcohol to deal with depressive symptoms.

Asian Americans, as discussed earlier in the paper, are the least likely of the ethnic groups to seek assistance from treatment centers. Therefore although individuals may be suffering from depression, it appears that the state of depression may not be taken seriously if individuals do not seek treatment.

**Collective Self-Esteem**

Self evaluation of one’s social identity is pertinent to how an individual measures one’s social or collective identity (Luhtanen & Crocker, 1992). There are unique traits that are associated with being an Asian American. In the Asian culture, much emphasis is placed on the family. Krestan (2000) stated that individual family members were excluded from the group when Asian families experienced situations or behaviors that were unacceptable by that particular family member. In other words, the individual family member who has acted not in accordance to family beliefs or values is isolated. By isolating the individual suffering from problems such (e.g. addiction), the individual may further feel propelled to engage in the negative activity, creating a less than positive environment for all individuals involved. If an individual feels that he/she needs to feel accepted by the group, he/she may feel hindered from bringing shame to the group and therefore may not try to disclose their alcoholism to the public.

The actions, problems, and consequences an individual is involved in a traditional Chinese-American family affects not only the individual, but the family as well. Research conducted by Yeh and Huang (1996) revealed that ethnic identification is a complex process
influenced strongly by the sense of collectivism by the individual. They argued that current
ethnic identity development models place too much emphasis on the individual and do not take
into account the importance of factors such as situational contexts that are exclusive to Asian
Americans (e.g. shame). The researchers explain that bringing shame to the family within the
Asian American culture is to be avoided at all costs. Forty percent of the sample in the study
agreed that shame was pertinent to developing an ethnic identity (Yeh & Huang, 1996).
Therefore, the family unit’s needs are placed higher than the needs of the individual which could
be a reason to why so few Asian Americans enroll themselves into treatment centers. Zhang
(2005) stated that “the need for positive collective self-esteem is…considered a fundamental
human motivation and it is satisfied by relatively positive evaluation of one’s group (p. 197).” To
summarize, Zhang (2005) found that in order to attain good relationships and have a higher level
of life satisfaction, an individual must be agreeable, or rather must conform to his/her own
groups values and beliefs. That is, an individual must adhere to their cultural values for complete
congruity. In the Chinese American culture, the value of the family and collective needs are
primary values; therefore, individuals may not seek counseling for alcoholism to not bring shame
to their kin group and to not hinder their family relations.

*Tension Reduction*

Alcohol, particularly during the college years is prevalent at many different social
gatherings. During stressful situations, alcohol may be used as a means to reduce stress (Brown,
Christiansen, & Goldman, 1987). Since alcohol has the abilities of lowering inhibitions, students
may consume alcohol in order to de-stress themselves (e.g. from daily stressors of life that may
be caused by school, family, friends, etc). Friedman et al (2007) explain that “tension reduction
can be characterized as an internalizing phenomenon” (p. 111). In other words, alcohol has the ability to create self directed effects.

In the study conducted by Orford et al, the researchers discovered that heavy drinkers scored higher than their light drinkers counterparts on drinking expectancies such as that of tension reduction. Therefore, the university students who participated in the study affirmed the widely held belief that alcohol has the expectancy of helping drinkers cope. It was discovered that heavy drinkers reported more benefits, the top three being increased “social life, fun/humour, and self confidence (p. 418), therefore consuming alcohol reduced tension.

Social Factors

Internalization of the Model Minority Stereotype

Asian-Americans have been labeled as the “model minority” for decades. The model minority myth originated from the 1950s and 1960s and has since then penetrated itself through society impacting Asian-Americans, their parents’ expectations and the role of education (Kim, 2006). The stereotype bestowed upon this ethnic minority group has occasionally dominated serious effects upon Asian American children. Specially, the offspring struggle between a traditional life structured by their parents and a life they yearn to create in order to construct their own identities. This matter needs to be addressed because within the Asian-American community, drinking usually occurs in the form of social gatherings such as college parties. Therefore, students with serious drinking problems may not receive the treatments that they need, or individuals may not perceive drinking as a problem considering the context of the consumption.

Wong et al. (1998) explains that the model minority stereotype given to Asian Americans is apparent because they have been able to attain respectable careers and jobs and higher socio-
economic statuses through higher levels of education, despite racism. Many studies have proclaimed that the model minority stereotype may be detrimental to the well being of an Asian American (Sue & Okazaki, 1990). Many Asian-American individuals feel a tremendous amount of pressure to live up to the “model minority” stereotype. Students, particularly in college, may feel the most pressure in terms of achieving the academic excellence that society expects from them. A number of students need to find outlets to release stress. Many students cope negatively by turning to alcohol as their primary means to address their stress-related problems in relation to their academics. Even within the larger Asian-American population, there are vast differences of consumption among the ethnic subgroups and gender, however this study will focus primarily on alcohol consumption among Chinese-Americans.

Through Lee’s (1994) fieldwork at a school she called Academic High School, she revealed that there were many Asian American students who, although may have been perceived to fit the model minority stereotype, indeed were not academically successful in school. For example, although a student by the name of Mei Mei was considered to be a high achiever, the stereotype negatively affected how she viewed herself. She feared failure and commented that she performed poorly (Lee, 1994). Another example of the negative connotations this stereotype has on Asian American students is revealed through a student by the name of Ming. Although it appeared that he was performing well in his classes, it was revealed that his academics were suffering. Due to the fact that he internalized the stereotype, he believed that as an Asian he could not reveal his failures to others because it was shameful and embarrassing (Lee, 1994). Ying et al. (2000) confirmed through their findings that despite the fact that Chinese Americans are members of the model minority and are assumed to perform well academically, the two
highest domains in which Chinese American students reported as challenging were academic demands and unclear career direction.

Peer Pressure

Nagasawa (2000) examined whether or not the social control and peer cluster theory held an inextricable link to adolescents from ethnic subgroups within the larger Asian-American population (Nagasawa et al., 2000). The researchers explain Hirschi’s (1969) social control theory and how it concentrates on variables such as social bonds, particularly focusing on the family, school, friends, and values stating that if social bonds are weak or non-existent, deviant behavior may be apparent since the individual does not practice conformity to society’s morals. The researchers examined Oetting and Beauvias’ (1986) peer cluster theory which concentrates on variables associated with how members within peer cluster groups who share similarities such as attitudes and lifestyles may negatively influence the individual. Results show that peer relationships associated with deviant behavior such as drug or alcohol abuse may increase other individuals within the group to behave in similar deviant behaviors. The researchers unveiled that youth were less likely to consume alcohol or use drugs if they held stronger ties with family and friends and if they participated in orthodox activities. Youth generally had their activities ascertained by their close social network (Nagasawa et al., 2000). On the other hand, a closer between group examined revealed that Asian-American youth who affiliated themselves with deviant individuals were more likely to become deviant themselves and use substances (Nagasawa et al., 2000). Thus, if adolescents spend time with peers who engage in deviant behaviors such as consuming alcohol, they themselves will be more apt to acting similarly to their peers.
As Nagasawa’s article explained, adolescence is a transitional and at times difficult period for many individuals to endure. Teenagers and young adults, particularly those in college, are more exposed to more alcohol and are more prone to become peer pressured to drink. Hence, an adolescence is more vulnerable to abuse substances such as alcohol (Chung, 2002). In order to facilitate this life span in a positive manner, much emphasis should be placed upon discovering the factors that contribute to alcohol consumption among adolescents (Hendershot et al., 2005).

Clasen and Brown (1985) examined the degree and direction of peer pressures by adolescent’s perceptions. The researchers discovered that instead of receiving pressure from conforming to peer norms, adolescents reported a substantial amount of peer pressure to participate in acts of misconduct (Clasen & Brown, 1985). Therefore, adolescents at this point in their lives are easily influenced by their environment and social networks, which in this case is the negative influence by peers to participate in negative activities (e.g. drinking, consuming alcohol).

**Cultural Factors**

**Cultural Congruity**

College campuses are extremely diverse, comprising of thousands of students who come from different ethnic groups, languages, and life experiences. During times when individuals who belong to two or more cultures are placed in environments in which the values of the dominate group may differ from that of the individual, cultural incongruity may occur (Gloria & Robinson Kurpius, 1996). Cultural congruity, as described by the authors, is the fit between students' personal values and the values of the environment in which they operate (Gloria & Robinson Kurpius, 1996). Particularly at the university level, perceptions of the ability of culturally “fitting in” may affect racial/ethnic student’s academic endeavors (Cervantes, 1988;
Fiske, 1988). Individuals, in this case Chinese-American students, may experience cultural incongruity if their campus does not allow positive social interaction, such as consuming alcohol which is a social activity among family members and friends, for these students (e.g. some cultures may view alcohol as a form of social interaction). This cultural factor is pertinent to the study because it assesses the cultural fit of the environmental values to that of the individual. In other words, it allows researchers to better understand how the values of the university coincide or clash with the values of the student (Gloria & Robinson Kurpius, 1996).

Perception of University Environment

In the study conducted by Gloria and Robinson Kurpius (1996), it was discovered that the more positive students viewed their university environment, the more apt they were to making positive decisions that affected their academic persistence. Student perceptions of the university environment is an important factor to consider and has been found to be consistent among ethnic minorities such as that of Asian Americans (Gloria et al., 2001). For example, if students participate in social organizations that encourage the usage of alcohol, the students themselves may become more susceptible to engaging in these behaviors if they have a positive perception of their group and their university environment.

The following hypotheses are based on the research questions posed in the methods section of the study:

H1: Chinese American college students will be found to be at risk for problematic alcohol consumption behaviors.

H2: Chinese American male students will consume more alcohol than their female counterparts.
H3: Each of the psychosociocultural variables will significantly affect alcohol consumption. Among the three clusters, the psychological constructs will be the strongest predictor for alcohol consumption patterns.

H4: There was a relationship between the study’s variables and criterion variable.

Methods

Hypotheses

The independent variable for this study is alcohol consumption among Chinese American college students. The dependent or predictor variables are depression, collective self esteem, tension reduction, model minority stereotype, peer pressure, cultural congruity, and university perception.

In this study, the researchers used the multiple regression analyses to examine the research questions. In this statistical model, consumption of alcohol is the dependent variable for each regression model, and the predictor variables, categorized by the PSC construct, are as follows: (Psychological factors) depression, collective self esteem, and tension reduction; (Social factors) Model Minority stereotype and peer pressure; (Cultural factors) cultural congruity and university perception.

At a four year south western university in which the survey study was conducted, the Asian/Pacific Islander is surprisingly high. Of the 20,061 undergraduates students enrolled in the fall of 2005, the undergraduate study body was comprised of approximately 44% of Asian-Americans. The main focus is to understand the factors that contribute to the alcohol consumption patterns by Chinese American undergraduate students, all of which will be revealed through the examination of the PSC factors examined.

Participants
The sample consisted of 100 undergraduate students from a four-year research institution located on the West Coast. The study focuses on one specific Asian-American ethnic group: Chinese-Americans. The research assumes that this group of students represents this study’s ethnic groups of focus within the Chinese American community at the four-year research institution in which the questionnaires were completed. All participants were required to be over the age of eighteen in order to participate in the study.

Procedure

After the Institutional Review Board (IRB) approval was secured, a total of 118 questionnaire packets were distributed to Chinese American college students who were willing to participate in the study. One hundred surveys were completed (85% response rate). The questionnaires were non-randomly distributed to individuals through the usage of the snowballing effect and were required to have a Chinese American background. Participation in the study was purely voluntary. Verbal consent was obtained before the distribution of the questionnaire. The questionnaire cover letter included elements of an informed consent; All participants were required to read the consent sheet in order to participate in the study. The questionnaire took an average of 20-25 minutes to complete. Anonymity of the completed questionnaires was strictly adhered to for the protection of all participants.

Instrumentation

The questionnaire consisted of a demographic sheet and eight self-report instruments. The demographic sheet assesses such items as gender, age, generational status, and parental educational level. The eight self-reported instruments consisted of the CORE Alcohol and Drug Survey (The CORE Institute at Southern Illinois University – Carbondale (SIUC), Center for Epidemiological Studies Depression Scale (CES-D) (Radloff, 1977), the Collective Self-

The Scale of Anti-Asian American Stereotypes (SAAAS) (Lin, M. H., Kwan, V. S. Y., Cheung, A., & Fiske, S. T., 2005), Peer Pressure Inventory (Clasen, D. R., & Brown, B. B., 1985), Cultural Congruity Scale (Gloria and Robinson Kurpius, 1996), and University Environment Scale (Gloria and Robinson Kurpius, 1996)

_The Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977)._ The CESD is a measure of self reported depression. Consisting of twenty questions, the scale ranged from 1 (a little of the time) to 4 (most of the time) with statements including “I was happy” and “I was bothered by things that usually don’t bother me” with a study alpha level of .88.

_The Collective Self-Esteem Scale (Luhtanen & Crocker, 1992)._ Every individual categorizes him/herself in different groups depending on their social experiences. The CSE, a scale used to measure an individual’s positive social or collective identity with an individuals racial/ethnic group, consisted of sixteen items and ranged from 1 (strongly disagree) to 7 (strongly agree) with statements including “I am a worthy member of my race/ethnic group” and “Overall, I often feel that my racial/ethnic group is not worthwhile.” The scale had an alpha level of .75-.86.

_Alcohol Expectancy Questionnaire (AEQ-Adolescent; Brown, Christiansen, & Goldman, 1987)._ The AEQ for adolescents investigated the expectation of alcohol as a stress reliever on a scale from 1 (strongly disagree) to 5 (strongly agree). Nine items from the tension reduction subscale were used for the study. The scale ranged from 1 (strongly disagree) to 5 (strongly agree) with an alpha level of .79.
Scale of Anti-Asian American Stereotypes (Lin, Kwan, Cheung, Fiske, 2005). The SAAS is a twenty-five item scale that differentiates between two dimensions: (excessive) competence and (deficient) sociability and shows envious mixed prejudices of Asian Americans (Lin, Kwan, Cheung, Fiske, 2005). Items ranging from 0 (strongly disagree) to 5 (strongly agree) included statements such as “Asian Americans seem to be striving to become number one” to “Asian Americans do not interact with others smoothly in social situations.” The SAAS sociability alpha level for this study was .86 and the competence alpha level was .76.

Peer Pressure Inventory (Clasen & Brown, 1985). The PPI investigated peer pressure to engage in alcohol behaviors. Four of the items were selected to be a part of this study’s questionnaire. The scale was bipolar ranging from -3, indicating a lot, to +3, indicating a lot that included pairs of statements describing peer pressure (e.g. How strong is the pressure from your friends to:…Drink beer or liquor…Or to:…NOT drink beer or liquor). The study’s alpha level was .80.

Cultural Congruity Scale (Gloria & Robinson Kurpius, 1996). The CCS is a scale that measures the perception of a student’s cultural congruity or cultural fit to his/her university environment. The scale consists of thirteen items ranging from 1 (not at all) to 7 (a great deal) with statements including “My family and school values often conflict” to “As an ethnic minority, I feel as if I belong on this campus.” The CCS alpha level was .68.

University Environment Scale (Gloria & Robinson Kurpius, 1996). The UES scale measures the perception of the university environment. The scale consisted of 12 items and ranged from a scale of 1 (not at all) to 7 (a great deal) with items that included statements such as “The university seems like a cold, uncaring place to me,” to “University staff have been warm and friendly.” The scale had a study alpha level of .74.
CORE Alcohol and Drug Survey (CORE Alcohol and Drug Survey; The CORE Institute at Southern Illinois University – Carbondale (SIUC), 2006). Seventy questions pertaining to alcohol were taken from the original CORE survey in order to attain information regarding an individuals’ alcohol behavior and thoughts about consequences of drinking alcohol. Questions included current alcohol consumption, what individuals thought about alcohol, extracurricular activities the individual participated in, family history of alcohol consumption, among others.

The researchers used the CORE Alcohol and Drug Survey as the criterion variable in order to measure the consumption of alcohol. As defined by the actual survey, consumption of alcohol is the number of drinks (a drink is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink) an individual consumes (CORE Alcohol and Drug Survey; The CORE Institute at Southern Illinois University – Carbondale (SIUC), 2006). The researchers selected a total of seventy one questions from the actual survey.

Results

The 100 questionnaires were scored in accordance to the methods section of the study. By inputting the data into SPSS, analyses of chi-square, regression, and correlation were used to examine all four of the research questions. By using the CORE Alcohol and Drug Survey as the criterion variable, the researchers created a composite alcohol consumption score by taking the average of the standardized alcohol consumption questions: five or more drinks in one sitting, average number of drinks, how often an individual consumed alcohol, and how many days the individual consumed alcohol. The alpha coefficients of the variables are shown in Table 2.

Alcohol Consumption Patterns Among Chinese American College Students

In congruence with the hypothesis, the numbers show that Chinese American college students were found to be at risk for problematic alcohol consumption behaviors. The age of first
onset of alcohol usage ranged from six to twenty one years old, with $M = 17.34$ years and $SD = 2.58$.

_Differences in Alcohol Consumption by Gender Among Chinese American College Students_

The cross tabulation analysis gave evidence that there were significant alcohol consumption rates by gender among Chinese American college students. Table 1 shows that within the time frame of a year, males consumed considerably more alcohol than their female counterparts. Chi-squared, $\chi^2$, one of the most common tests to test statistical significance equated to $\chi^2 (6) = 15.24$ with a p value of .018, therefore showing a significant gender difference.

In the question asking alcohol consumption within the past thirty days, there was yet another significant gender difference. The researchers calculated that $\chi^2 (4) = 11.64$, $p = .020$ which provided strong evidence that males consumed more alcohol than females.

The analysis of the average number of drinks an individual consumed in a week by gender showed a significant gender difference. Twenty females stated that they did not consume alcohol as opposed to 38 males ($\chi^2 (5) = 14.86$, $p = .011$).

There were no significant gender differences in alcohol consumption measured in the span of two weeks ($\chi^2 (5) = 9.39$, $p = .095$), nor was there was significant gender difference in the onset of the age when alcohol was first consumed ($t (78) = -0.66$, $p = .509$).

_Effects of the Psychological, Social, and Cultural Factors_

For the third research question determining the extent to which the psychological, social, and cultural factors affected alcohol consumption among Chinese American college students, the researchers conducted separate step-wise regression for males and females in order to determine which variable was more significant. To identify theoretical ordering a hierarchical regression on
the dependent variable, alcohol consumption, was run for males. Since there were several significant variables that needed to be accounted for in terms of why males consumed alcohol, the hierarchical regression had to be used. In other words, Steps 1 and 2 provided evidence that the social factor within the PSC framework was the strongest indicator as to why males consumed alcohol, and Step 3 indicated that the cultural factor was also a crucial predictor. It was not necessary to run a hierarchical regression for females because there was only one significant variable (Table 3).

Females

The survey study revealed that the overall model only included tension reduction as a contributor to alcohol consumption among females. Alcohol as a tension reducer explained 9% of the variance in alcohol consumption, $F(1, 47) = 4.67, p = .036$. Higher reports of tension reduction was related to alcohol consumption ($\beta = .30, t = 2.16, p = .036$).

Males

Three variables were significant at the p value ($< .05$). The overall model of the model minority stereotype (sociability), university environment, and peer pressure explained 43% of the variance in alcohol consumption, $F(3, 49) = 11.71, p = .000$. The stereotype of the Chinese American’s social ineptitude ($\beta = .46, t = 4.12, p = .000$), the positive perception of the university environment ($\beta = .34, t = 3.01, p = .004$), and the higher peer pressure to drink ($\beta = .28, t = 2.45, p = .018$) all accounted for the higher alcohol consumption among males.

In the post hoc analysis concerned with finding patterns in subgroups of the sample, a hierarchical multiple regression was run on the dependent or predictor variable of alcohol consumption identifying the theoretical ordering due to the fact that there were several significant variables for males:
• Step 1 = Stereotype of the CA’s social ineptitude
  • R2 = .193, p = .001
• Step 2 = Peer pressure to drink
  • R2 = .074, p = .018
• Step 3 = Perception of university environment
  • R2 = .166, p = .001

Among males, the stereotype of the Chinese Americans’ social ineptitude explained 19% of the alcohol consumption, the perception of the university environment explained 16% of the variance in alcohol consumption, and the peer pressure to drink explained 7% of the variance in alcohol consumption.

Interrelations between the Study’s Variables and Criterion

Table 4 shows the correlations between the study’s variables (depression, collective self esteem, tension reduction, Model Minority stereotype, peer pressure, cultural congruity and university perception) and the study’s criterion variable based on the composite alcohol score of alcohol consumption.

Discussion

This study examined the psychological factors of depression, collective self-esteem, and tension reduction, the social factors of the Model Minority stereotype and peer pressure, and the cultural factors of cultural congruity and university perception that influenced alcohol consumption among Chinese American college students. Results that supported and confirmed our hypotheses along with those that were rejected by our hypotheses are discussed below.

Consistent with the literature review, further research needs to be conducted in order to further investigate the factors that this study has examined as well as other potential contributors.
that influence Asian American college students to consume alcohol. Unlike the model minority stereotype that perceives Asian Americans as having few mental health problems and covers up unrealistic academic pressures (Crystal, 1989), the results reveal that Chinese American college students are at risk for problematic alcohol consumption behaviors.

It is interesting to find that the only significant factor influencing females to consume alcohol is tension reduction, the psychological factor, while for males, three factors contribute to the problem of alcohol consumption: stereotypes of the Chinese American’s social ineptitude (social factor), perception of the university environment (cultural factor), and the peer pressure to drink (social factor). These results reveal a few implications. A group of males in this study were members of a fraternity. For those males who consumed a considerable amount of alcohol, it can be implied that these Chinese American males may internalize more of the model minority stereotype as being less socially competent. Due to the internalization of this stereotype, male Chinese American students may become more influenced to drink alcohol in order to lower their inhibitions and become considered socially competent by their peers. In turn, they may give into peer pressure more easily in order to be accepted by the larger group. Also, as a result of their positive perception of the university environment, these young men join in this social organization (the fraternity) and therefore participate in these at risk alcohol behaviors because it is believed that joining these types of social organizations may create a sense of belonging to the university or build more friendships.

By glancing at the chart, the interrelations support our hypothesis and reaffirm the statistical significant variables as shown in RQ3. For example, males showed a statistical significance between alcohol consumption (alcohol) and the Asian American stereotype of social ineptitude (SAAS) (.298**). The researchers had previously thought that the psychological
factor would be the strongest predictor for alcohol consumption; however in actuality, the social factor significantly contributed to the increase in alcohol consumption patterns.

Limitations

There are several limitations to this particular study that would be beneficial to account for if this study were to be repeated. First, to make the study generalizable to the targeted population, a larger sample size of 300 instead of 100 would be needed. Secondly, individuals who were willing to participate in the study comprised highly of individuals who were age 18. A variance in the age group would most likely have contributed to different results. Also, the use of the snowballing effect was used in order to gather participants. By using this method, the survey study was not a non-random sampling because the same groups of individuals with similar beliefs and values were answering the questionnaires as opposed to representatives from different Chinese American academic, social, and religious organizations.

Implications

The university that this study was conducted in had a unique population comprising mostly of Asian American students. In order to obtain a better understanding of the serious yet underrepresented alcohol consumption problems among Chinese American students or more broadly, the Asian American population, it is imperative to conduct similar studies on different college campuses around the state and nation to compare the patterns that exist among this ethnic minority group. Further research can be done to provide within group differences between the different Asian subgroups (e.g. Korean American, Japanese American, etc.) which exist in the United States. In addition, further research needs to be conducted on college campuses throughout the state and possibly nation in order to draw comparisons and differences between
the various Asian subgroups. It is important to note that all Asians, although categorized under the ethnic group of “Asian,” have considerably different cultures and specific group problems.

Implications for practice are substantial. This survey study has indicated that Asian Americans are susceptible to social and cultural influences. University counseling centers and other on campus organizations need to reach out to Asian American students, particularly male college students because they are at most risk for consuming alcohol. Psycho education, particularly addressing the internalization of the model minority stereotype, need to be culturally significant and specific for Chinese Americans. The structure of these forms of education should be taught in social organizations such as fraternities and sororities. Topics of interest should include aspects such as how to appropriately deal with peer pressure, interactive general alcohol education showing students how much alcohol is too much, etc.
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perceptions of the university environment to help-seeking attitudes by sociorace and

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*Journal of Studies on Alcohol*, 66, 185-195.


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Table 1. *Results of cross tabulation.*

<table>
<thead>
<tr>
<th>Variable (N = 100)</th>
<th>$x^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>DV: Alcohol Consumption</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>15.24</td>
<td>.018</td>
</tr>
<tr>
<td>Past 30 days</td>
<td>11.64</td>
<td>.020</td>
</tr>
<tr>
<td>Two weeks</td>
<td>14.86</td>
<td>.011</td>
</tr>
<tr>
<td>Per week</td>
<td>9.39</td>
<td>.095</td>
</tr>
</tbody>
</table>

Table 2. *Descriptives - alpha coefficients of the study variables by subgroups.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total Sample ($n = 100$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression</td>
<td>.88</td>
</tr>
<tr>
<td>Collective Self Esteem</td>
<td>.75-.86</td>
</tr>
<tr>
<td>Tension Reduction</td>
<td>.79</td>
</tr>
<tr>
<td>Internalization of the Model Minority Stereotype</td>
<td>.76</td>
</tr>
<tr>
<td>Peer Pressure</td>
<td>.81</td>
</tr>
<tr>
<td>Cultural Congruity</td>
<td>.68</td>
</tr>
<tr>
<td>Perception of the University Environment</td>
<td>.74</td>
</tr>
</tbody>
</table>

Table 3. *Results of the hierarchal regression analyses for Males.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>$R^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stereotype of the CA’s social ineptitude</td>
<td>.193</td>
<td>.001</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perception of university environment</td>
<td>.166</td>
<td>.001</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer pressure to drink</td>
<td>.074</td>
<td>.018</td>
</tr>
</tbody>
</table>
Table 4. Correlations of the study variables.

<table>
<thead>
<tr>
<th></th>
<th>alcohol</th>
<th>ppi</th>
<th>aeq</th>
<th>Ccs</th>
<th>cesd</th>
<th>sasS</th>
<th>saasC</th>
<th>ues</th>
<th>cse</th>
</tr>
</thead>
<tbody>
<tr>
<td>alcohol</td>
<td></td>
<td>.295**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ppi</td>
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<td></td>
<td>.242*</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Ccs</td>
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<td>-.210*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cesd</td>
<td></td>
<td></td>
<td></td>
<td>-.235*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>sasS</td>
<td>.298**</td>
<td></td>
<td></td>
<td></td>
<td>.462**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>saasC</td>
<td>.239*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.462**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ues</td>
<td></td>
<td>.242*</td>
<td>.324**</td>
<td>-.235*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cse</td>
<td>-.219*</td>
<td>.256*</td>
<td>-.245*</td>
<td>-.366**</td>
<td>.406**</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

alcohol = Composite Alcohol Variable  
ppi = Peer Pressure  
aeq = Tension Reduction  
ccs = Cultural Congruity Scale  
cesd = Depression  
sasS = Asian American Stereotype = Social Ineptitude  
saasC = Asian American Stereotype = Competence (Over Achieving)  
ues = University Environment Perception  
cse = Collective Self-Esteem