Psychosociocultural Factors that Influence Chinese American College Students' Alcohol Consumption
Chinese Americans are the largest Asian American subgroup in the United States.

Alcohol consumption among Asian American college students were much higher than expected and exceed the national sample when compared to other groups (So & Wong, 2006).

Asian Americans are the least likely to enroll in alcohol treatment centers.

Samhsa (2005) http://www.oas.samhsa.gov/nsduh/2k5nsduh/2k5results.htm#Ch3
Purpose of the Study and Operationalization

- The focus of this study examines alcohol consumption patterns among Chinese American college students at a four year institution using the psychosociocultural framework.

- Operationalization
  - **Psychological**
    - Depression
    - Tension Reduction
    - Collective Self Esteem
  - **Social**
    - Model Minority Stereotype
    - Peer Pressure
  - **Cultural**
    - Cultural congruity
    - University Perception
Conceptual Framework

Psychological
- Depression
- Tension Reduction
- Collective Self Esteem

Social
- Model Minority Stereotype
- Peer Pressure

Cultural
- Cultural Congruity
- University Perception

Gloria & Rodriguez, 2000
Psychological

• Depression
  o To manage with struggling pressures if children do not achieve academically in their educational endeavors they may turn to alcohol (Bhattacharya, 1998)
  o Depression was a probable component to predicting an individuals’ alcohol consumption (Otsuki, 2003)

• Chinese Americans face unique stressors such as immigration and acculturative stress, racism, and family shame

• Collective self-esteem (Yeh and Huang, 1996)
  o “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” (Zhang, 2005)

• Alcohol is a tension reducer
Social

• Model Minority Stereotype (Crystal, 1988)
  o Perceived as having few mental health problems
  
  o Stereotypes: Described as diligent, intelligent, immune from social and psychological problems

• Peer Pressure
  o Adolescents are more vulnerable to abuse substances such as alcohol (Chung, 2002)
Culture

- At the university level, perceptions of the ability of culturally “fitting in” may affect racial/ethnic students academic endeavors (Cervantes, 1988; Fiske, 1988)

- Perception of the university environment

  - If the university environment is perceived as being a friendly environment, a student has the ability to utilize on campus resources to find different ways of coping

  - Student may resort to drinking if they are unable to find appropriate resources to reduce stress
Research Questions

1. What are the alcohol consumption patterns among Chinese American college students?

2. What are the differences in alcohol consumption by gender among Chinese American college students?

3. To what extent do the psychological, social, cultural factors affect alcohol consumption among Chinese American college students?

4. What are the interrelations between the study’s variables and criterion?
### Variables

<table>
<thead>
<tr>
<th>Predictor Variables:</th>
<th>Dependent Variable:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P</strong> Depression</td>
<td>Alcohol Consumption</td>
</tr>
<tr>
<td><strong>P</strong> Collective Self Esteem</td>
<td>Alcohol Consumption</td>
</tr>
<tr>
<td><strong>S</strong> Tension Reduction</td>
<td>Alcohol Consumption</td>
</tr>
<tr>
<td><strong>S</strong> Model Minority Stereotype</td>
<td>Alcohol Consumption</td>
</tr>
<tr>
<td><strong>S</strong> Peer Pressure</td>
<td>Alcohol Consumption</td>
</tr>
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<td><strong>C</strong> University Perception</td>
<td>Alcohol Consumption</td>
</tr>
<tr>
<td><strong>C</strong> Cultural Congruity</td>
<td>Alcohol Consumption</td>
</tr>
</tbody>
</table>
**Definition:**

- Consumption of alcohol is defined as 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 uses.

**Criterion Variable:**

- The CORE Alcohol and Drug Survey
- Created a composite alcohol consumption score by taking the average of the standardized alcohol consumption questions:
  - Five or more drinks in one sitting
  - Average # of drinks
  - How often have you used alcohol
  - How many days did you have alcohol
Method

Procedures:
• Institutional Review Board approval secured
• Snowballing effect

Participants:
• 118 distributed
• 100 completed
• Response rate: 85%
• Average age: 19.70, Range: 18-25 years

Gender:
• Male: 50
• Female: 50

Generation:
• First generation: 18
• Second generation: 71
• Third generation: 6
• Fourth generation: 2
• Fifth generation: 1
• Other: 2
## Measures

<table>
<thead>
<tr>
<th>Scales</th>
<th>Content</th>
<th>Items</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Demographic</td>
<td>Gender, Generation level, etc…</td>
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<tr>
<td>2 Center for Epidemiological Studies Depression Scale (CESD)</td>
<td>Depression Level</td>
<td>20</td>
<td>$\alpha = .877$</td>
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<tr>
<td>3 Collective Self-Esteem Scale (CSE)</td>
<td>One's positive social or collective identity</td>
<td>16</td>
<td>$\alpha = .889$</td>
</tr>
<tr>
<td>4 Alcohol Expectancy Questionnaire (Revised AEQ-Adolescent)</td>
<td>Expectation of alcohol as stress relief</td>
<td>9</td>
<td>$\alpha = .786$</td>
</tr>
<tr>
<td>5 Peer Pressure Inventory (PPI)</td>
<td>Peer pressure to engage in alcohol</td>
<td>4</td>
<td>$\alpha = .802$</td>
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<tr>
<td>6 Scale of Anti-Asian American Stereotypes (SAAS)</td>
<td>Negative Asian American stereotypes including the model minority stereotype</td>
<td>25</td>
<td>Sociability: $\alpha = .861$&lt;br&gt;Competence: $\alpha = .761$</td>
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<td>7 Cultural Congruity Scale (CCS)</td>
<td>Cultural congruity</td>
<td>13</td>
<td>$\alpha = .675$</td>
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<tr>
<td>8 University Environment Scale (UES)</td>
<td>Perceptions of University Environment</td>
<td>12</td>
<td>$\alpha = .739$</td>
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<td>9 CORE Alcohol and Drug Survey</td>
<td>Alcohol behavior and consequences</td>
<td>70</td>
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</tbody>
</table>
RQ1: What are the alcohol consumption patterns among Chinese American college students?

5 drinks or more in one sitting
- 65 = None
- 16 = Once
- 8 = Twice
- 7 = 3 to 5 times
- 3 = 6 to 9 times
- 1 = 10 or more

Average # of drinks consumed in a week
- 58 = None
- 19 = Once
- 8 = Twice
- 6 = 3 to 5 times
- 5 = 6 to 9 times
- 3 = 10 or more
- 1 = Missing

In last year, how often used alcohol?
- 21 = did not use
- 11 = once/year
- 18 = 6 times/year
- 12 = once/month
- 18 = twice/month
- 12 = once/week
- 8 = 3 times/week

During past 30 days, how many days did you drink?
- 31 = 0 days
- 35 = 1-2 days
- 20 = 3-5 days
- 9 = 6-9 days
- 5 = 10-19 days

Age first use alcohol
- M = 17.34 years, SD = 2.58
- Range: 6 to 21 years
RQ2: What are the differences in alcohol consumption by gender among Chinese American college students?

- Within the last year, about how often have you used alcohol?

- Significant gender difference, 
  \[ \chi^2 (6) = 15.24, \quad p = .018 \]
RQ2: What are the differences in alcohol consumption by gender among Chinese American college students?

- During the past 30 days, on how many days did you have alcohol?

- Significant gender difference

$$\chi^2 (4) = 11.64$$

$$p = .020$$
RQ2: What are the differences in alcohol consumption by gender among Chinese American college students?

- In the past two weeks, how many times have you had five or more drinks at one sitting?
- No significant gender difference
  \( \chi^2 (5) = 9.39 \)
  \( p = .095 \)
- At what age did you first use alcohol?
  - Males: \( M = 17.20, SD = 3.07 \)
  - Females: \( M = 17.59, SD = 1.89 \)
- Not significant gender difference
  \( t (78) = -0.66, \)
  \( p = .509 \).
RQ2: What are the differences in alcohol consumption by gender among Chinese American college students?

- Average # of drinks you consume in a week
- Significant gender difference
  \[ \chi^2 (5) = 14.86 \]
  \[ p = .011 \]
RQ3: To what extent do the psychological, social, and cultural factors affect alcohol consumption among Chinese American college students?

- Conducted separate step-wise regression for males and females
  - **DV** = Composite alcohol consumption score
  - **IVs**: depression, tension reduction, peer pressure, model minority stereotype, cultural congruity, university perception, and collective self-esteem
RQ3: Males

- The overall model of the model minority stereotype (sociability), university environment, and peer pressure explained 43% of the variance in alcohol consumption, $F(3, 49) = 11.71, p = .000$.
  - Stereotype of the CA’s social ineptitude was related to higher alcohol consumption, $\beta = .46, t = 4.12$, $p = .000$.
  - More positive perception of university environment was related to higher alcohol consumption, $\beta = .34, t = 3.01$, $p = .004$.
  - Higher peer pressure to drink was related to higher alcohol consumption, $\beta = .28, t = 2.45$, $p = .018$. 
Hierarchical Multiple Regression

DV: Alcohol Consumption

- Step 1 = Stereotype of the CA’s social ineptitude
  - $R^2 = 0.193$, $p = 0.001$

- Step 2 = Perception of university environment
  - $R^2 = 0.166$, $p = 0.001$

- Step 3 = Peer pressure to drink
  - $R^2 = 0.074$, $p = 0.018$
RQ3: Females

- The overall model only included tension reduction and 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, $\beta = .30, t = 2.16, p = .036$. 
RQ4: What are the interrelations between the study’s variables and criterion?

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<tr>
<th></th>
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<th>ppi</th>
<th>aeq</th>
<th>ccs</th>
<th>cesd</th>
<th>sassS</th>
<th>saasC</th>
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<td>.406**</td>
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</table>

Note: * = Correlation is significant at the .05 level (2 tailed).
** = Correlation is significant at the .01 level (2 tailed).

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
### Implications

#### Implications for Research

- UC Irvine has a unique population comprising mostly of Asian Americans, therefore college campuses around the state and nation can conduct research in order to compare the patterns that exist among Chinese Americans
- Further research can possibly provide within group differences between the different Asian subgroups

#### Implications for Practice

- Reach out to Asian American males because they are more at risk for consuming alcohol
- Address issues of internalization of the model minority stereotype
- Provide psycho education, for example, among fraternities
Limitations

• Larger sample size of 300

• Age group

• Snowballing effect
  • Same groups of individuals were answering rather than representatives from different Chinese American academic, social, and religious organizations
Acknowledgement

• Dr. Jeanett Castellanos
• Yong Park
• Dr. Caesar Sereseres
• Said Shokair & UROP
• Leyna Vo
• All participants

Thank You Very Much!