Short Communication

Differences in alcohol use patterns between adolescent Asian American ethnic groups: Representative estimates from the National Survey on Drug Use and Health 2002–2013

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HIGHLIGHTS

- Prevalence of alcohol use differed across adolescent Asian American ethnic groups.
- Higher rates of use among Korean, Filipino, and Japanese American adolescents
- Lower rates of use among Chinese and Asian Indian American adolescents
- Vietnamese American adolescents had highest rate of early initiation of use.
- Aggregated rates of Asian alcohol use mask high rates among specific ethnic groups.

ARTICLE INFO

ABSTRACT

Objective: Studies have suggested that alcohol use prevalence is increasing among Asian American adolescents and there may be significant differences between specific adolescent Asian American ethnicities.
Method: Data from the National Survey on Drug Use and Health (2002–2013) were used to estimate prevalence of alcohol use (lifetime, past-month, past-year) and problem (binge drinking, alcohol use disorder [AUD], and early initiation of use) outcomes among adolescent Asian American ethnicities.
Results: Filipino Americans had the highest prevalence of lifetime (29.3%) and past-month (10.3%) use; Korean Americans had the highest prevalence of past-year use (22.7%). Asian Indian Americans had the lowest prevalence of all three use indicators: 14.6%, 11.9%, and 4.9% for lifetime, past-year, and past-month, respectively. Korean Americans had the highest prevalence of binge drinking (5.4%), Filipino Americans had the highest prevalence of AUD (3.5%), and Vietnamese Americans had the highest prevalence of early initiation of use (13.5%). Asian Indian Americans had the lowest prevalence for all three alcohol problem indicators: 2.6%, 1.0%, and 4.9% for binge drinking, AUD, and early initiation of use, respectively.
Conclusions: Prevalence estimates of alcohol outcomes among Korean, Japanese, and Filipino American adolescents were high and similar to other racial groups that are often considered higher risk racial groups. Estimates among large subgroups with low alcohol use prevalence, Chinese and Asian Indian Americans, may mask high rates among other Asian ethnicities when alcohol use estimates are presented among Asians overall. When feasible, researchers should present alcohol use estimates disaggregated by specific Asian American ethnicities and investigate differences in risk factors across groups.

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1. Introduction

Asian American youth consistently report lower levels of alcohol use than other racial/ethnic groups. Data from the 2013 U.S. National Survey on Drug Use and Health (NSDUH) indicate that Asian American youth have the lowest prevalence of past-month alcohol use and binge drinking among all race/ethnicity groups (Substance Abuse and Mental

Health Services Administration, 2014). Such findings could lead public health researchers and practitioners to deprioritize examination of patterns of alcohol use among Asian Americans. However, continued investigation into alcohol use prevalence and correlates among Asian Americans is an important area of study for many reasons. First, the number of Asian Americans under age 18 is projected to increase 87% by 2060, from a current estimate of 3.3 to 6.2 million. This is the largest projected increase among youth of all racial groups (Colby & Ortman, 2015). Because of the projected size of the Asian population, detailed information about their drinking patterns fulfills the basic public health task of behavioral monitoring. Second, studies indicate that prevalence of alcohol use problems among Asian Americans in late adolescence and early adulthood is increasing at a faster rate than among adolescents in general (Grant et al., 2004), highlighting the need to better understand and address this growing problem. These statistics are concerning as youth drinking is associated with sexual risk behaviors, impaired driving and motor vehicles crashes, and violence, as well as an increased risk for alcohol problems in adulthood (Hingson & Zha, 2009; Murray et al., 2002; Singleton, 2007).

A third reason to examine alcohol use among Asian American adolescents is that patterns of use may vary widely by Asian ethnic group. Several recent studies have demonstrated that reporting on aggregate populations of Asian Americans masks important within-group differences and may conceal high rates of use within specific groups (Hendershot, Stoner, George, & Norris, 2007; Iwamoto, Takamatsu, & Castellanos, 2012; Iwamoto, Corbin, & Fromme, 2010; Kane et al., 2016; Shih et al., 2015; Wang, Kviz, & Miller, 2012). Le, Goebert, and Wallen (2009) found higher rates of substance use (including alcohol) among Cambodian and Lao/Mien youth compared to Chinese and Vietnamese youth. Wong, Klingle, and Price (2004) found that self-reported lifetime alcohol use among Asian American high school students varied across subgroups, with prevalence as high as 65% among Pacific Islander youth (although Pacific Islander populations are now typically not considered an Asian subgroup; Office of Management and Budget, 1997) and as low as 37% among Chinese youth. A study of college students showed that rates of past 3-month binge drinking were high among Filipino and Japanese American students and comparable to students in other race groups (Iwamoto et al., 2012). A recent, nationally-representative study of adults showed that there were statistically significant differences in drinking patterns across five Asian subgroups; Japanese and Koreans reported higher levels of past month use compared to Chinese, Filipino, and Indian adults (Lee, Han, & Gfroerer, 2013). Finally, in one of few longitudinal studies of drinking patterns among Asian youth, Shih et al. (2015) observed differences by subgroup. Though not statistically significant, findings showed that Vietnamese American youth were three times more likely than Japanese-American youth to report lifetime alcohol use, and that Indian Americans were the least likely to initiate alcohol use over the three-year period of the study.

Although several studies suggest there are differences in drinking patterns among Asian adolescents by subgroup, there is a dearth of widely-generalizable and representative prevalence estimates. Specifically, studies that investigate differences by Asian subgroup have been limited by small sample sizes, specialized and non-representative samples, wide age ranges, and underrepresentation of certain ethnic groups (Iwamoto et al., 2012). This represents a significant gap in knowledge, and is inadequate for effective public health practice. In this brief report, we use nationally-representative data to examine alcohol use among adolescents of different Asian American ethnic groups.

2. Methods

2.1. Data source and sample

Data are from the online, publicly available 2002–2013 United States National Survey on Drug Use and Health restricted-use data analysis system (NSDUH-RDAS). Approximately 67,500 U.S. residents 12 years

and older are interviewed annually. Multistage area sampling yields nationally representative samples of households. Further details of NSDUH methodology have been published elsewhere (Substance Abuse and Mental Health Services Administration, 2015). The NSDUH RDAS was used for this study because it measures alcohol use behaviors among different Asian American subgroups: Chinese, Filipino, Japanese, Asian Indian, Korean, Vietnamese, other (not specified), and Asian Americans indicating multiple subgroups. We use a similar methodology as Lee et al. (2013), who examined within group differences among Asian adults. Our analysis used adolescent data from NSDUH RDAS, including youth ages 12–17 years, which accounted for approximately 32% of the total sample. Analyses were conducted with de-identified, publicly available data and were designated as non-human subjects research by the Institutional Review Board at Johns Hopkins Bloomberg School of Public Health.

2.2. Outcome measures: alcohol use and alcohol use disorders

Six alcohol-related outcomes were included in the analysis: alcohol use as assessed by 1) lifetime use, 2) past-year use, 3) past-month use; and alcohol use problems as assessed by 4) past-month binge, 5) past-year alcohol use disorder (AUD), and 6) early initiation of use (i.e., initiation prior to age 14). Presence of AUD (abuse or dependence) was based on the clinical feature criteria in the *Diagnostic and Statistical Manual for Mental Disorders, 4th Edition* (DSM-IV; American Psychiatric Association, 1994).

2.3. Statistical analysis

Prevalence estimates for each of the six outcomes are presented with corresponding variances as 95% confidence intervals (CI) using Taylor series linearization, accounting for sampling weights and the complex survey design.

3. Results

3.1. Prevalence of alcohol use

Table 1 summarizes all alcohol use outcomes stratified by Asian American ethnic group. Filipino Americans and Korean Americans displayed the highest prevalence of use among Asian American ethnicities. Filipino Americans had the highest estimates of lifetime (29.3%, 95% CI: 26.0%–32.7%) and past-month (10.3%, 95% CI: 8.2%–12.8%) use. Korean Americans had the highest prevalence of past-year use (22.7%, 95% CI: 18.8%–27.0%) followed closely by Filipino Americans (22.0%, 95% CI: 19.1%–25.2%). For all three use indicators, Asian Indian Americans had the lowest prevalence: lifetime (14.6%, 95% CI: 12.6%–17.0%), past-year (11.9%, 95% CI: 10.0%–14.1%), and past-month (4.9%, 95% CI: 3.8%–6.4%). In aggregate, estimates for Asian Americans overall were 23.6% (95% CI: 22.3%–25.0%) for lifetime, 17.6% (95% CI 16.5%–18.9%) for past-year, and 7.2% (95% CI: 6.8%–8.0%) for past-month use.

3.2. Prevalence of alcohol use problems

The highest estimates for alcohol use problems were among Filipino, Korean, and Japanese Americans. Binge drinking was highest among Korean Americans (5.4%, 95% CI: 3.6%–8.1%). Prevalence of past year alcohol use disorder was highest among Filipino Americans (3.5%, 95% CI: 2.5%–5.0%) and Korean Americans (3.4%, 95% CI: 2.1%–5.5%). Vietnamese Americans had the highest prevalence of early initiation of drinking (13.5%, 95% CI: 10.6%–17.2%). Ethnic groups with consistently low estimates of alcohol use problems were Chinese and Indian Americans. The lowest prevalence of binge drinking was 2.6% (95% CI: 1.8%–3.9%) among Indian Americans and 2.7% (95% CI: 1.8%–3.9%) among Chinese Americans. Past-year alcohol use disorders were reported by 1.0% of both Indian Americans (95% CI: 0.5%–1.8%) and Chinese Americans