

Asian-Americans, Addictions, and Barriers to Treatment

[Timothy W. Fong](#), MD[✉] and [John Tsuang](#), MD, MS

Psychiatry (Edgmont). Nov 2007; 4(11): 51–59.

Published online Nov 2007.

PMCID: PMC2860518

Abstract

Asian-American Pacific Islanders (AAPI) are one of the fastest growing minority groups in America. Due to model minority stereotypes and a lack of empirical data, AAPI have been thought to have lower than expected rates of substance use disorders and behavioral addictions. Recent data demonstrated that this conception is not true for all AAPI subgroups. As an example, rates of alcohol use disorders remain close to that of non-AAPI populations, even among AAPI that experience the flushing syndrome thought to protect from alcoholism. Another example of emerging data shows that methamphetamine dependence is particularly high (approximately 10%) among the Pacific Islander population, which is a startling figure. One behavioral addiction gaining more attention among AAPI is pathological gambling. Recent community surveys have shown that pathological gambling rates among AAPI vary but can be strikingly high. Despite the growing body of evidence that shows that addictive disorders in AAPI are significant and are not absent, there remain many barriers to treatment. These barriers include cultural values, individual factors, and practical issues. This article will review current epidemiological rates of addictive disorders among AAPI, will describe the current treatment barriers that face this population, and will provide practical solutions to breaking down these barriers.

Keywords: Asian-American, race, ethnicity, cultural barriers, addiction, barriers to treatment

Introduction

According to the 2000 US census, there are, approximately, 12 million Asian-American Pacific Islanders (AAPI) living in the US.¹ Although this represents approximately five percent of the general population, growth of AAPI increased by 50 percent as compared to 13 percent for the entire country ([Table 1](#)). AAPI are distributed throughout the country but the highest density is centered around three major metropolitan areas: San Francisco, Los Angeles, and New York ([Table 2](#)). California is an example of a state with rapid AAPI population growth; close to 12 percent of the entire state population are AAPI.² Nationally, the largest AAPI subgroups are Chinese, Filipino, Asian Indian, Vietnamese, Korean, and Japanese—together these six groups represent 87 percent of the AAPI in America ([Table 3](#)).³ In terms of immigration patterns, Chinese and Japanese have been in the US for several generations while Southeast Asians are more recent immigrants coming after the Vietnam War.

Table 1 Rate of population growth of Asian American Pacific Islanders from 1990 to 2000

Year	Asian American Pacific Islanders	Total Population
1990	~ 7 million	~ 248 million
2000	~ 12 million	~ 281 million
Net Increase	50%	13%

Source: US Census Bureau

Table 2 Percent distribution of the Asian population in America

Region	Percent Distribution
West	50%
Northeast	21%
Midwest	10%
South	19%

Source: US Census Bureau

Table 3 Asian Population by group

Identified Ethnicity	Total Population (approximately)
Chinese	2.7 million
Filipino	2.6 million
Asian Indian	1.9 million
Korean	1.2 million
Vietnamese	1.2 million
Japanese	1.1 million

Source: US Census Bureau

Asian Population by group

Understanding the different population subgroups and the dynamics of growth are important because AAPI are a heterogeneous group (at least 20 different ethnic subgroups) with individualized cultures and heritages. Recent studies of AAPI and substance use disorders have shown that AAPI, as a single group, have low rates of alcohol and drug abuse disorders.⁴ This notion supports the general stereotype of AAPI as a model minority group who do not experience problems related to mental health, medical comorbidity, or addictions. The reality is that although generalized national data may reflect lower rates of substance use disorders, it does not mean the clinical significance or impact on the community is negligent. AAPI with addictive disorders suffer the same consequences as non-AAPI populations. Furthermore, the impact of addictive disorders on AAPI populations are often hidden away from family members and friends until they are so serious that intervention is often forced onto them (arrest, hospitalization, homelessness).⁴ AAPI with addictive disorders face several cultural and practical

barriers to treatment and the result has been an underutilization of addiction and mental health treatment.⁵ This article provides an overview of addictive disorders among AAPI, the barriers that are faced in treatment, and practical solutions on how to break down these barriers.

Epidemiology of AAPI Addictive Behaviors

Because of the wide range of AAPI subgroups, understanding epidemiological patterns of substance use disorders among specific AAPI population has been difficult. Prior to 1999, AAPI were listed as “others” in national household surveys. Since this time, national surveys focusing only on AAPI substance abuse have not been conducted; instead, AAPI have been included as a category in recent national surveys. Findings from the 2000 Substance Abuse and Mental Health Services Administration (SAMHSA) survey indicate that approximately five percent of AAPI used illicit drugs in the past year.⁴ This percentage represents a lower rate of substance use disorders as compared to non-AAPI populations, but it is still a significant number. Sakai analyzed data from the 2000–2002 National Household Survey on Drug Abuse and reported that three percent of AAPI meet criteria for a substance use disorder.⁶ Furthermore, almost 70 percent of the AAPI that met criteria for a substance use disorder were foreign-born as compared to just three percent of the Caucasian group. An interesting trend is revealed in that, overall, AAPI had higher rates of abstaining from alcohol and illicit drugs but in the subgroup of AAPI who were not abstainers, this group demonstrated equal rates of substance dependence as compared to Caucasians.

Kumi-Price recently reviewed four national epidemiological studies to understand prevalence rates of substance use disorders among subgroups of AAPI.⁴ First, lower rates of AAPI substance dependence as a group were confirmed. Japanese-Americans, though, were found to have substance use and abuse rates similar to those of Caucasians, while Vietnamese-Americans reported the lowest level of substance use and abuse. Furthermore, AAPI of mixed-heritage reported much higher rates of substance use and abuse as compared to unmixed racial groups. The explanation surrounding this finding is still unclear but it is thought to be due to genetic and psychological differences seen only in the mixed-heritage groups. These ethnic group differences would not have been sorted out unless data on specific ethnicities were available.

One indicator that at first glance suggests a lower overall rate of substance use disorders among AAPI is the number of AAPI that present to alcohol or drug abuse treatment. According to the Treatment Episode Data Set (TEDS) less than one percent of all patients who are admitted to national treatment surveys report themselves as AAPI.⁷ The primary reason for admission, among AAPI, is alcohol, marijuana, stimulants, opiates, and cocaine. Despite this low number, recent data suggest that more AAPI are presenting to treatment for the first time and over the last 10 years there has been an increase in the number of AAPI that enter treatment. So, in reality, this low number presenting to treatment probably represents the larger healthcare disparity that exists between those that need treatment and those that actually present to treatment.

In community surveys, however, the rates of substance use disorders do not necessarily reflect that of national surveys. Wong, in a survey of 494 Southeast Asians, found that alcohol consumption rates were equal to non-AAPI use rates and that US-born AAPI were three times more likely to use drugs than foreign-born AAPI.⁸ Another example of this occurs with college students. So surveyed 248 AAPI college students and found that this group had similar prevalence rates of drug use pattern as compared to a national non-AAPI sample, indicating that AAPI are not immune from substance abuse.⁹ This trend is further illustrated in a recent study examining the drug use patterns of AAPI men who have sex with men.¹⁰ In this study of 496 AAPI men, 24 percent used an illicit substance weekly or more often, 51 percent used club drugs, and 44 percent used three or more illicit substances. Together, these studies provide examples that within smaller ethnic subgroups or within specific populations, AAPI do in fact have significant levels of alcohol and substance use disorders.

AAPI and Specific Substances of Abuse

There are some unique biopsychosocial aspects of addictive disorders that impact the AAPI population. In regards to specific data, the most appears to be available in the area of alcohol and much less is available in regards to drugs of abuse. Recognizing these specific factors is important to identifying AAPI populations who are most vulnerable to developing these addictive disorders.

Alcohol. Close to 50 percent of AAPI have been shown to have the presence of an inactive isomer of the aldehyde dehydrogenase enzyme (ALDH2).¹¹ This enzyme is important in the metabolizing of alcohol, and the end result is a reduction in the oxidation of acetaldehyde during alcohol metabolism, resulting in the accumulation of acetaldehyde, which will trigger an Antabuse-like reaction. Otherwise known as the “flushing syndrome,” AAPI with this genetic mutation, when they drink, experience flushing (vasodilation), feelings of warmth, tachycardia, pruritus, and nausea. Because of the high penetrance into AAPI, this was thought to play a role in reducing rates of alcohol dependence. Most studies have shown that the presence of this polymorphism does indeed lower the risk of AAPI but it doesn't eliminate it, nor is it the only factor contributing to the lower risk.¹¹

In contrast, there are some subgroups of AAPI that still demonstrate high alcohol use despite the absence of this alcohol-metabolizing enzyme. For instance, according to SAMHSA data, 62 percent of Japanese Americans and 52 percent of Korean Americans used alcohol over the last month as compared to about 25 percent of Filipinos, Chinese, and Vietnamese. These differences are also highlighted in acculturation issues; immigrants from Japan and Korea have a higher past-month rate of alcohol use compared to other immigrant groups (>50% compared to 25%). These cultural trends do have implications to public health; for instance, according to Department of Justice data from Los Angeles County, driving under the influence (DUI) are the most common reasons for why Korean-Americans are arrested.

These data indicate there are stronger cultural and environmental influences to drinking other than the contribution of the mutated alcohol-metabolizing enzyme. For instance, psychological maladjustment, low self esteem, and low self confidence are related to increased alcohol use among Chinese and Filipino adolescents.¹² In other AAPI groups, immigration, the presence of

psychological distress, and feelings of being “out of control,” have been shown to related to alcohol abuse, especially among Vietnamese and Hmong immigrants.¹³

Another clear factor is the role of acculturation on alcohol intake. A working definition of acculturation is the number of generations residing in the US. Most studies indicate that the more acculturated AAPI are, the more likely they are to consume more alcohol.⁴ Unfortunately, very little work exists to describe whether or not acculturation is related to the development of alcohol use disorders. One unexplored area is understanding exactly how significant the role of psychological and environmental influences are on the rates of alcohol dependence among AAPI.

Nicotine. Tobacco use in Asian countries is quite substantial as noted that China is the largest producer and consumers of tobacco in the world. Various estimates suggests that up to 60 percent of adult males in China and Korea smoke.¹⁴ Studies have shown that close to 17 percent of the AAPI population smoke, which is significantly less than the estimated 21 percent of the general population.¹⁵ Reasons for this remain somewhat puzzling because of the high smoking rates in Asian countries of origins. Some researchers have suggested that the reduced smoking rate may be due to the selection of Asian immigrants who are more educated and have higher incomes.¹⁶ Another explanation is low sampling biases seen in community and national surveys (i.e., AAPI who do not speak English are not likely to answer, and this group has been shown to have higher than expected smoking rates). In terms of gender differences, AAPI men are more likely to smoke as compared to AAPI women, and this is thought to relate to the acculturation process. AAPI women who are more acculturated to the US are more likely to smoke as compared to recent immigrants; in men, the reverse relationship is true. Explanations for this are unclear but are possibly related to the interplay between gender and impact of acculturated values on behavior.

Even though national data may show reduced rates of smoking, community surveys have found elevated rates of nicotine dependence in certain vulnerable groups. Specifically, the following factors are associated with increased likelihood of smoking: not being able to speak English, recently immigrating to the US, being from a Southeast Asian Heritage, and being an adolescent AAPI.¹⁵ One of the limitations of these studies is that most are focused on three ethnic subgroups: Chinese, Korean, and Vietnamese. Very little is known about smoking rates among Asian Indians, Filipino, and AAPI women.¹⁵

AAPI that do smoke habitually have been shown to smoke more cigarettes per day than any other ethnic group, with an average of close to 17 cigarettes per day (close to one and a half packs per day).¹⁵ This has implications to public health as lung cancer is the predominant cancer affecting AAPIs and the leading cause of cancer deaths.¹⁷

In terms of treatment data, most of the major clinical trials on nicotine dependence did not include AAPI, thus limiting the generalizability of those trials to clinical practice.¹⁵ AAPI have been shown to metabolize nicotine differently, so currently available dosages of nicotine replacement therapy may need to be adjusted when being prescribed. For non-pharmacological treatment studies, such as behavioral counseling or the use of telephone helplines, there have been only a few studies looking at the impact of culturally specific services. One example of how

this might be important comes with data from the tobacco helpline in California. Close to 40 percent of the Asian callers to the tobacco helpline were friends or family members compared to six percent of the calls for non-AAPI.¹⁸ This suggests that AAPI may be less likely to ask for help for themselves or that family members are more likely to ask for help for their loved one. This implicates the need to involve family members in treatment from the very beginning, which is a different concept than that seen in the themes of self-reliance and personal responsibility among Western cultures.

Methamphetamine. In terms of incidence and prevalence rates of substance use disorders among AAPI, there tends to be lower rates overall for all AAPI for stimulants, marijuana, and heroin dependence. Recent data from Kumi-Price shows though that the most vulnerable groups are mixed-races of AAPI.⁴ It is unclear what the vulnerability that is conveyed here is but these data cannot be ignored.

One particularly concerning trend though is the evidence showing elevated rates of methamphetamine abuse and dependence among Hawaiians and Pacific Islanders. These rates have been shown to be as high as nine percent in some studies.¹⁹ This rate is more than three times higher than the expected rate seen in the general population. Further evidence shows that admissions for methamphetamine have increased four-fold in the last several years.²⁰ Some have argued that this increased rate may be due to the location of these islands and that they lay along the lines of direct drug trades routes from Asia to the United States. Another risk factor that is described for this population is availability, untreated mental health disorders, and lack of structured activities for the disenfranchised community.²¹ One unexplored factor that needs to be examined is the notion that some AAPI cultural beliefs validate stimulant use. For instance, many traditional Asian medicines are alcohol-based or are taken for an energy boost (e.g., ephedra, chewing on the betel quid otherwise known as the stimulant leaf).

AAPI Population and Gambling

AAPI have had a long history of accepting gambling as a community and family recreational activity. Recent national prevalence surveys of the general population have shown rates of pathological gambling to be around 1 to 2 percent.²² Other surveys conducted specifically on AAPI communities have resulted in varying numbers. A 1997 community survey conducted by the San Francisco NICOS Chinese Health Coalition and two UC Berkeley graduate students found that 14.7 percent of Chinese subjects identified themselves as problem gamblers, and 21 percent met the criteria for pathological gambling.²³ Nancy Petry and her colleagues at the University of Connecticut Health Center conducted a 2002 community survey of Southeast Asian refugees in Connecticut that reported 59 percent of Laotians, Cambodians, and Vietnamese met criteria for pathological gambling.²⁴ The UCLA Gambling Studies Program conducted a random survey at a Los Angeles Casino in 2006 where 30 percent of the casino patrons surveyed identified as AAPI. Furthermore, while there was no significant difference in pathological gambling between AAPI and non-AAPI casino patrons, approximately 30 percent of the AAPI casino patrons surveyed met criteria for pathological gambling.²⁵

While there may be individual biological and psychological factors that play a role in the development of problem gambling, there are cultural and social factors that may encourage these

problem gambling behaviors in specific ethnic groups. These factors may account for the higher rates of problem gambling and for the severity of the consequences that result from problem gambling. For AAPI, psychological and social factors, denial, guilt, or shame, coping strategies, acculturation issues, language barriers, and help-seeking behaviors all exacerbate the impact of problem gambling on the gambler, family, and community.

Barriers to Treatment

AAPI have varying levels of risk and vulnerability to addictive disorders and appreciating the differences between ethnic subgroups is critical for screening and early intervention. As a whole, AAPI are greatly underrepresented in addictions treatment across the different settings, from residential to outpatient to hospital-based admissions.²⁶ This under-representation of AAPI in treatment is thought to be due to, in part, an underestimation of the extent of the problem but is more likely also driven by barriers to treatment.

Although the stereotype is that AAPI do not present or come to treatment, the reality is that there are several significant and unique barriers to accessing care. Recent studies have shown that AAPI substance dependent patients are less likely to enter substance abuse treatment (8%) as compared to non-AAPI substance dependent patients (16%).⁶ This healthcare disparity also holds true for gender, and Asian dually diagnosed women have been found to be less likely to receive mental health and/or substance abuse services as compared to their Caucasian counterparts.²⁷ One important note is that existing data of treatment retention, duration, and outcome suggest that there are little differences between AAPI and non-AAPI substance abusers.²⁸ This further highlights the importance of deconstructing barriers to treatment as this debunks the myth that AAPI do not respond to treatment

Barriers to care will significantly impact the ability of AAPI to accept or receive care for addictive disorders. In general, recent reports have indicated that AAPI have poor access to care for medical care and mental healthcare, making it likely that access to substance abuse care is also lacking.²⁹ Couple this with the fact that patients with substance use disorders often do not access care or seek treatment, regardless of ethnicity, and this creates a double barrier for AAPI-addicted patients. Although many of these barriers are similar to what are experienced by non-AAPI population, there are several that are specific. For the purpose of clarity, treatment barriers for AAPI can be divided into cultural and practical barriers.

Cultural barriers. These are, primarily, cultural factors that will lead to either a delay in or not seeking treatment. The most recognized one is the issue of shame in asking for help for an addictive disorder. The traditional AAPI response to crises is either denial or attempting to handle problems within the family itself. The shame in asking for help represents a failure of the family to solve the situation, and AAPI place significant emphasis on appearances of normal functioning. This concept is called “losing face” and leads to the suppression of the disorder in that both patients and families will have difficulty discussing the history, symptoms and consequences.³⁰

Stigma for Asians suffering from addictive disorders is another significant barrier and can emerge in several different forms. First, there is the general stigma from society of seeking help

for an addictive disorder; this would be true for any member of any ethnicity. Second, AAPI have to face the stigma of seeking help for psychiatric and behavioral problems. AAPI have a holistic view of health and oftentimes view mental and addictive disorders as a medical problem, a sign of weakness, or a lack of willpower over Western temptations. The end result of most forms of stigma is to isolate, alienate, avoid, and to create ambivalence about seeking help, which in turn will lead to a delay in the time to seeking treatment, which means that often, AAPI who present to treatment are further along in their addiction. Treatment will then be more difficult because of the increased negative emotions seen, anger, denial, resentment, frustration, and desperation. This stigma is often accentuated by AAPI past experience with addiction treatments in their native countries whereupon such treatments are often equated with incarceration, banishment, or long-term institutionalization.³¹

Contributing to the barriers of shame and stigma are the concepts of prejudice and discrimination. As an example, Gee recently reported that the more Filipino-Americans experienced “everyday unfair treatment,” (which is defined as encountering prejudice, discrimination, poorer customer services, being insulted or harassed, and being treated with less respect) the higher the risk is for alcohol dependence and prescription drug misuse.³²

Lack of recognition or identification of an addiction problem is another important barrier to accessing care. For instance, AAPI tend to somatize mental health problems and/or consequences of substance abuse and report them as physical symptoms.³³ AAPI with addictions will tend to present first into medical clinics, especially if they have a co-occurring medical problem. This behavior is not denial, which is an overt disavowing of an illness, but rather a misattribution of what is causing the problem. Levels of awareness and understanding about the signs and symptoms of addictive disorders, particularly in AAPI communities, can be quite low.³⁴ The degree of education and acculturation certainly contribute to this barrier.

Familial insulation can be another significant barrier. Many immigrant families live in isolation due to language and cultural barriers. There are times when families prefer to solve the problem on their own, without having to bring in the influence of an “outsider.”³⁴ Although empiric data maybe lacking, there may also be a general level of mistrust among AAPI in regards to US healthcare system. As an example, Southeast Asians report a distrust of Western medicine because by the time AAPI presented to treatment, the conditions are severe enough that outcomes will be poor but patients are left wondering why Western treatment always seems to result in poor outcomes. Along these same lines, some ethnic subgroups of AAPI are unfamiliar with Western medicine and techniques and persist in thinking that diagnostic equipment such as x-rays can be curative.

Practical barriers. Separate from cultural issues there are specific barriers to the delivery of psychiatric and addiction care to AAPI population. One of the first issues is limited access to care because of cost, awareness that care exists, or because there is lack of actual services that can be accessed. Data on this topic suggests that AAPI who are likely to not have access to care include recent immigrants, the uninsured, and those who do not speak English.²⁷ Overcoming these basic barriers is not easy, especially in health treatment settings that only follow a Western model of treatment. Transportation and access to insurance are also examples of access-to-care issues.

Another critical systems issue is the lack of culturally competent services tailored to specific AAPI language, cultural beliefs, and values. Specifically, most cities lack trained health and social service providers that are familiar with AAPI beliefs and values, health-seeking behaviors, and culturally relevant treatment strategies. This will likely lead to higher dropout and less chance of engagement in treatment in the first place. As an example, most addiction treatment programs will utilize 12-step support groups. These groups may not work with AAPI populations who have a difficult time expressing emotions and sharing private information and who may not be comfortable speaking English in public. Although daunting to accomplish, especially with the wide range of heterogeneous AAPI populations, understanding each AAPI culture is a critical issues to address.

A third barrier is lack of evidenced-based programs that have demonstrated to be effective in the treatment of addictive disorders among AAPI. This represents the circular argument that without treatment, there needs to be more research; likewise, without supporting research, there will not be any treatments developed. As an example, some AAPI may be more likely to go to a non-Western treatment for addictive disorders including acupuncture, traditional Chinese herbal medications, or other religious healers. These patients would most likely never seek help for addictive disorders in Western treatment settings.

Strategies to Overcome Barriers

Understanding the cultural and practical barriers that exist are the first step to reducing them. Some have called for treatment programs that are multicultural and multilingual. Although ideal, this may be a difficult reality, especially if there are not qualified providers to be hired and or if there is a lack of national or statewide funding for culturally specific services. Instead, reducing the barriers to AAPI addictions treatment will have to rely on creative and practically based interventions.

Specific suggestions include creating alternative 12-step groups that focus less on confrontation and more on support and education. Additionally, having a trusted member of the Asian community present at or conducting these support groups might be helpful; this could be a local pastor or respected elder. Furthermore, the location of 12-step meetings is important because if they are located too far away, AAPI will not go, but conversely if they are located directly within the local, insular AAPI community, that introduces concerns of shame of self-disclosure and loss of anonymity.

Working with the families, separately, even before the client is ready to come in, may help reduce enabling and negative emotions toward the patient while increasing understanding of the family. This will also help to identify and reduce enabling and codependency behaviors that can be difficult for AAPI families to break because family harmony and acting as one are more familiar concepts than direct confrontation.

In order to improve cultural competency, consultation with local community cultural experts is another way of implementing cultural competency, especially if the treatment program does not have any training in that area. Having bilingual services or real-time translation services would also help to increase accessibility. Increasing cultural training can be time consuming and

expensive, so reaching out for accessible materials via the internet is important (SAMHSA provides the most comprehensive culturally competent resources). Another strategy to improve acceptability of treatment is to use a problem-based medical approach. AAPI have been shown to prefer acceptance of treatment that simultaneously address medical and emotional problems.³⁵ Given the availability of medications available for substance dependence (buprenorphine, acamprosate, varenicline, naltrexone IM), this may be a way to increase treatment retention and engagement. In other words, AAPI may be more accepting of medical treatments for addictions, rather than just psychosocial treatments. Along this vein, AAPI may be more willing to accept substance abuse screening and care from the primary care physician as compared to psychiatrists. AAPI patients expect the physician to come up with a specific recommendation at the first visit, which contrasts with treatment philosophies from the addiction world that emphasize patients needing to hit “rock bottom” and/or to come up with their own ways to treat themselves.

Future tools to reduce barriers. In addition to increasing awareness, education, and culturally appropriate services, there needs to be increased collaborative efforts between federal, state, and county agencies to collect ongoing, real-time data by ethnic subgroups, rather than classifying AAPI as a single population group. On a related note, increased research and clinical trials focusing on AAPI are required, and/or increasing AAPI who are recruited to clinical trials is critical to being able to generalize treatment efficacy. In terms of what specifically is required, first, a large representative sample of the diverse ethnic AAPI subgroups is needed. Secondly, having samples that have large representation from both genders and from both foreign-born and US-born AAPI is necessary to better understand the differences that occur due to immigration. Longitudinal studies of persons immigrating and then acculturating to the US are needed to clearly understand the impact of addiction and the barriers that are faced. Additional, longitudinal research on adolescent AAPI and mixed-heritage groups are also essential to address this vulnerable population. Current data from the last five years is beginning to underscore the fact that there is a wide variation in the amount of drugs that AAPI adolescents use but that the most vulnerable groups being of Pacific Islander or mixed-heritage.³⁶ And lastly, much more research into the areas of stigma, both the public and private forms, is required to better understand how to recognize it and intervene.

Conclusions

In summary, AAPI are an ethnic population that faces many different challenges in accessing care for addictive disorders. Stigma, shame, denial, guilt, and service care delivery items contribute to ongoing barriers to treatment. Recent emphasis on cultural competency at the trainee level has raised the awareness of many mental health programs but the number and availability of trained providers is still lacking. Recent evidence suggests that AAPI with addictive disorders do not have differences in treatment outcome, further highlighting that the greatest need is in breaking down treatment barriers. In order to reduce these barriers, AAPI will require a variety of methods to meet their needs, including increased prevention and education efforts along with more empirical research to better understand how these barriers impact addictive diseases.

Contributor Information

Timothy W. Fong, Dr. Fong is with the David Geffen School of Medicine at UCLA, Semel Institute of Neuroscience and Behavior, Department of Psychiatry and Biobehavioral Sciences, Assistant Clinical Professor, Director of the Impulse Control Disorders Clinic, and Co-Director of the UCLA Gambling Studies Program, Los Angeles, California.

John Tsuang, Dr. Tsuang is Clinical Professor, Department of Psychiatry, University of California, Los Angeles, and Director of Dual Diagnostic Treatment Program, Harbor-UCLA Medical Center.

References

1. Sondik EJ, Lucas JW, Madans JH, Smith SS. Race/ethnicity and the 2000 census: Implications for public health. *Am J Public Health*. 2000;90(11):1709–13. [[PMC free article](#)] [[PubMed](#)]
2. US Census Bureau. US Department of Commerce and Economic Statistical Information. 2002. California 2000: 2000 US Census Profile; pp. 1–6.
3. Reeves T, Bennett C. *We the People: Asians in the United States*. Washington DC: US Census Bureau; 2004.
4. Price RK, Risk NK, Wong MM, Klinge RS. Substance use and abuse by Asian Americans and Pacific Islanders: Preliminary results from four national epidemiologic studies. *Public Health Rep*. 2002;117(1):S39–50. [[PMC free article](#)] [[PubMed](#)]
5. Sue S, Chu JY. The mental health of ethnic minority groups: Challenges posed by the Supplement to the Surgeon General's Report on Mental Health. *Cult Med Psychiatry*. 2003;27(4):447–65. [[PubMed](#)]
6. Sakai JT, Ho PM, Shore JH, et al. Asians in the United States: Substance dependence and use of substance-dependence treatment. *J Subst Abuse Treat*. 2005;29(2):75–84. [[PubMed](#)]
7. *The DASIS Report: Asian and Pacific Islanders in Substance Abuse Treatment*. Rockville, MD: United States Department of Health and Human Services; 1999. Substance Abuse and Mental Health Services Administration.
8. Wong FY, Huang ZJ, Thompson EE, et al. Substance use among a sample of foreign- and U.S.-born southeast Asians in an urban setting. *J Ethn Subst Abuse*. 2007;6(1):45–66. [[PubMed](#)]
9. So DW, Wong FY. Alcohol, drugs, and substance use among Asian-American college students. *J Psychoactive Drugs*. 2006;38(1):35–42. [[PubMed](#)]
10. Operario D, Choi KH, Chu PL, et al. Prevalence and correlates of substance use among young Asian Pacific Islander men who have sex with men. *Prev Sci*. 2006;7(1):19–29. [[PubMed](#)]

11. Wall TL, Shea SH, Chan KK, Carr LG. A genetic association with the development of alcohol and other substance use behavior in Asian Americans. *J Abnorm Psychol.* 2001;110(1):173–8. [[PubMed](#)]
12. Hendershot CS, MacPherson L, Myers MG, et al. Psychosocial, cultural and genetic influences on alcohol use in Asian American youth. *J Stud Alcohol.* 2005;66(2):185–95. [[PMC free article](#)] [[PubMed](#)]
13. Amodeo M, Robb N. Evaluating outcomes in a substance abuse training program for Southeast Asian human service workers: Problems in measuring change cross-culturally. *J Drug Educ.* 1998;28(1):53–63. [[PubMed](#)]
14. Centers for Disease Control and Prevention (CDC) Cigarette smoking among adults—United States, 2002. *MMWR Morb Mortal Wkly Rep.* 2004;53(20):427–31. [[PubMed](#)]
15. Kim SS, Ziedonis D, Chen KW. Tobacco use and dependence in Asian Americans: A review of the literature. *Nicotine Tob Res.* 2007;9(2):169–84. [[PubMed](#)]
16. McCarthy WJ, Divan HA, Shah DB. Immigrant status and smoking. *Am J Public Health.* 2003;93(10):1616–7. 1616; author reply. [[PMC free article](#)] [[PubMed](#)]
17. McCracken M, Olsen M, Chen MS, Jr, et al. Cancer incidence, mortality, and associated risk factors among Asian Americans of Chinese, Filipino, Vietnamese, Korean, and Japanese ethnicities. *CA Cancer J Clin.* 2007;57(4):190–205. [[PubMed](#)]
18. Zhu SH, Anderson CM, Tedeschi GJ, et al. Evidence of real-world effectiveness of a telephone quitline for smokers. *N Engl J Med.* 2002;347(14):1087–93. [[PubMed](#)]
19. Nemoto T, Operario D, Soma T. Risk behaviors of Filipino methamphetamine users in San Francisco: Implications for prevention and treatment of drug use and HIV. *Public Health Rep.* 2002;117(1):S30–8. [[PMC free article](#)] [[PubMed](#)]
20. Brecht ML, Greenwell L, von Mayrhauser C, Anglin MD. Two-year outcomes of treatment for methamphetamine use. *J Psychoactive Drugs.* 2006;(3):415–26. [[PubMed](#)]
21. Iwanami A, Sugiyama A, Kuroki N, Toda S, et al. Patients with methamphetamine psychosis admitted to a psychiatric hospital in Japan: A preliminary report. *Acta Psychiatr Scand.* 1994;89(6):428–32. [[PubMed](#)]
22. Welte JW, Barnes GM, Wieczorek WF, Tidwell MC. Gambling participation and pathology in the United States—A sociodemographic analysis using classification trees. *Addict Behav.* 2004 Jul;29(5):983–9. [[PubMed](#)]
23. Woo K. The Chinese Community Problem Gambling Project. *Social Work Today.* 2003 Apr 21;:26–9.
24. Petry NM, Armentano C, Kuoch T, et al. Gambling participation and problems among South East Asian refugees to the United States. *Psychiatr Serv.* 2003;54(8):1142–8. [[PubMed](#)]

25. Fong TW, Campos MJ, DeCastro V, Rosenthal RJ. Prevalence rates of pathological gambling among casino patrons. 2007. In Preparation, October.
26. James WH, Kim GK, Armijo E. The influence of ethnic identity on drug use among ethnic minority adolescents. *J Drug Educ.* 2000;30(3):265–80. [[PubMed](#)]
27. Ta VM, Juon HS, Gielen AC, et al. Disparities in use of mental health and substance abuse services by Asian and native Hawaiian/other Pacific Islander women. *J Behav Health Serv Res.* 2007 Jul 24; [Epub ahead of print] [[PMC free article](#)] [[PubMed](#)]
28. Niv N, Wong EC, Hser YI. Asian Americans in community-based substance abuse treatment: Service needs, utilization, and outcomes. *J Subst Abuse Treat.* 2007;33(3):313–9. Epub 2007 Mar 21. [[PubMed](#)]
29. Agency for Healthcare Research and Quality National Healthcare Disparities Report 2004. Available at: www.ahrq.gov/qual/nhdr04/nhdr04.htm October 22, 2007
30. Sue D, Sue S. Cultural factors in the clinical assessment of Asian Americans. *J Consult Clin Psychol.* 1987;55(4):479–87. [[PubMed](#)]
31. Chung H, Teresi J, Guarnaccia P, et al. Depressive symptoms and psychiatric distress in low income Asian and Latino primary care patients: Prevalence and recognition. *Community Ment Health J.* 2003;39(1):33–46. [[PubMed](#)]
32. Gee GC, Delva J, Takeuchi DT. Relationships between self-reported unfair treatment and prescription medication use, illicit drug use, and alcohol dependence among Filipino Americans. *Am J Public Health.* 2007;97(5):933–40. [[PMC free article](#)] [[PubMed](#)]
33. Sue S, Sue DW, Sue L, Takeuchi DT. Psychopathology among Asian Americans: A model minority? *Cult Divers Ment Health.* 1995;1(1):39–51. [[PubMed](#)]
34. Chin K, Lai T, Rouse M. Social adjustment and alcoholism among Chinese immigrants in New York city. *Int J Addict.* 1990;25:709–30. [[PubMed](#)]
35. Naegle MA, Ng A, Barron C, Lai TF. Alcohol and substance abuse. *West J Med.* 2002;176(4):259–63. [[PMC free article](#)] [[PubMed](#)]
36. Wong MM, Klinge RS, Price RK. Alcohol, tobacco, and other drug use among Asian American and Pacific Islander adolescents in California and Hawaii. *Addict Behav.* 2004;29(1):127–41. [[PubMed](#)]