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Substance Use in Asian American Populations

Learning Objectives

01

Summarize the rates of addiction of different substances of abuse by API communities, as compared to the general population

02

Identify biological and environmental factors affecting addiction issues, especially among the API population

03

Discuss the negative biological and psychological consequences of substance use disorders among API

04

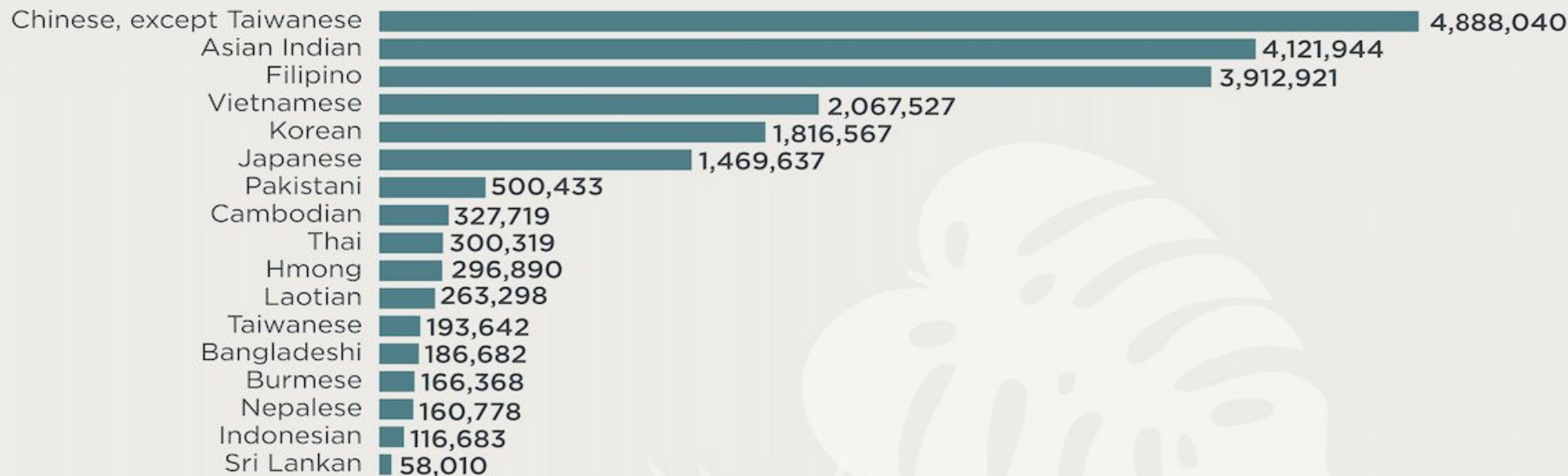
Discuss culturally appropriate treatment strategy for addiction and mental health issues among API

Outline

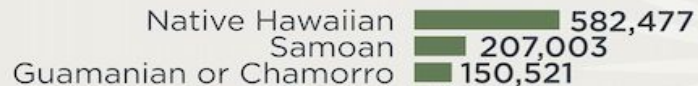
- 1. Demographics and Epidemiology**
- 2. Substances and Rates of Addiction**
- 3. Risk Factors**
- 4. Treatment**
- 5. Future Improvements**

Asian and Pacific Islander Population in the United States

Asian



Native Hawaiian and Other Pacific Islander



Epidemiology

Substance Abuse and Mental Health Services Administration (SAMHSA), 2013

- reported that the AAPI population has grown over 4 times the rate of the total population between 2000 and 2010

- AAPIs are half as likely to receive specialty treatment for substance use as other groups

US Department of Health and Human Services, 2011

- 291 facilities in the US to serve 500,000 AAPIs that needed treatment for substance use

Myth of Homogeneity-- leads to health care disparities across different ethnic Asian groups

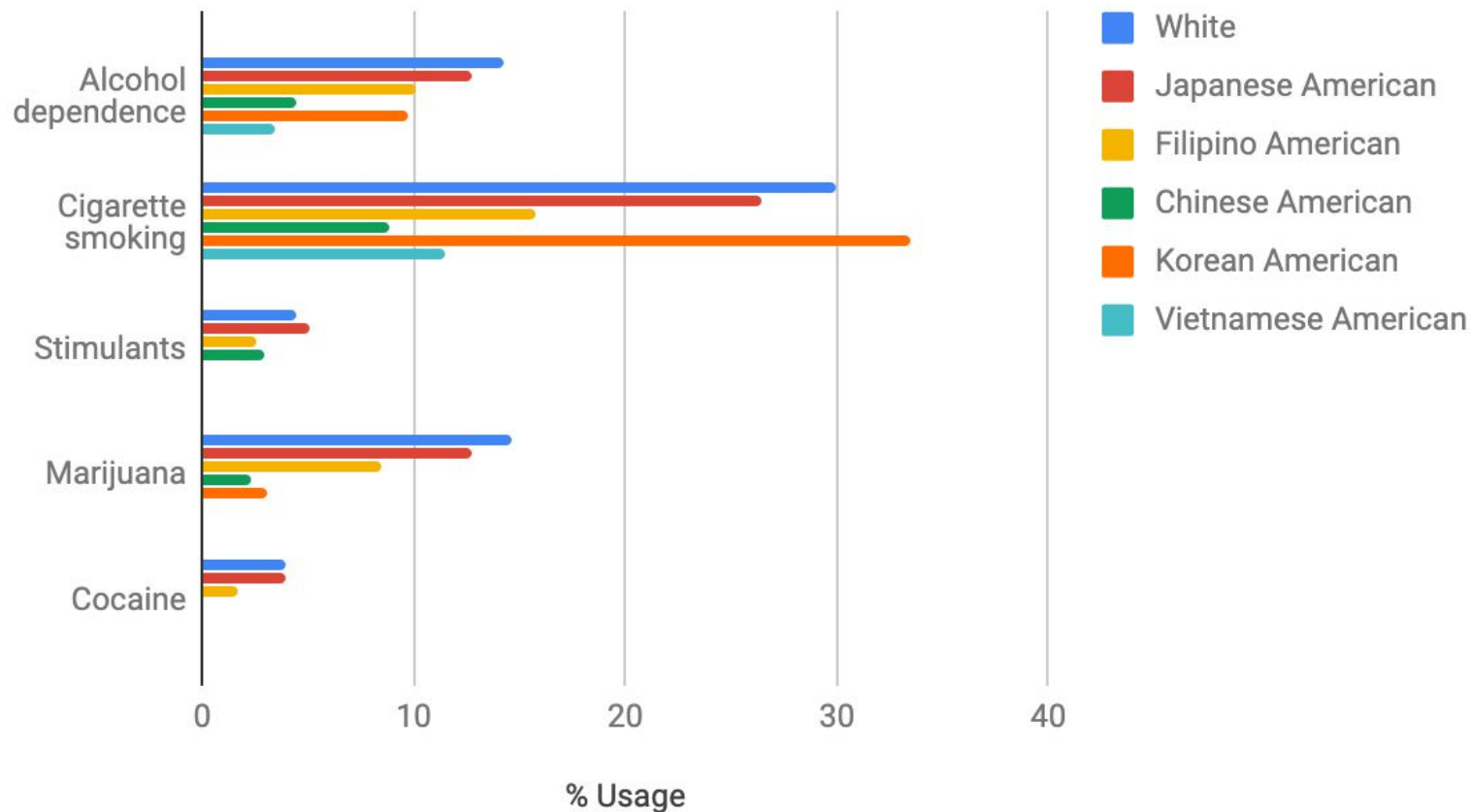
The Problem of Addiction

- increased rate of alcohol, tobacco, and other drug use begin early and increase through typically the mid 20s (increases likelihood of addiction)
- cost of addiction typically high--fatalities, loss of productivity, and costs to society and families
- addiction is also a cost of societal and environmental constructs, but more recently has been found to have a genetic component
- risk factors for addiction happen at all different stages→ community, family, school, and individual

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Rates of Addiction Among Different Substances of Use

Substance Use in Asian American Subpopulations



Alcohol Use Disorder

-Defined as:

-intoxication, addiction, tolerance,
physical dependence, withdrawal,
substance dependence and substance
abuse

Sequence

1

Intoxication

Reversible, substance specific, due to a recent exposure

2

Tolerance

Decline in potency through continued use

3

Physical Dependence

Development of withdrawal symptoms when a drug is stopped

4

Addiction

Compulsion

Marijuana Use Disorder

- commonly known as cannabis, weed, ganja, mary jane
- classified as a hallucinogen
- A substance that distorts how the mind perceives the world you live in
 - caused by THC

Effects of Marijuana Usage

Psychological (Short term)

- poor concentration
- poor coordination
- short-term memory loss
- anxiety
- increased appetite

Physiological (Long term)

- addiction
- impaired memory
- low motivation
- increased risk of lung or oral cancer

***NO SINGLE USE OF MARIJUANA WILL CAUSE AN OVERDOSE. LIKE TOBACCO, DAMAGE OCCURS OVER TIME. HOWEVER, OVERDOSE CAN OCCUR IF MARIJUANA IS LACED WITH OTHER DRUGS.

Lowry et al. 2011

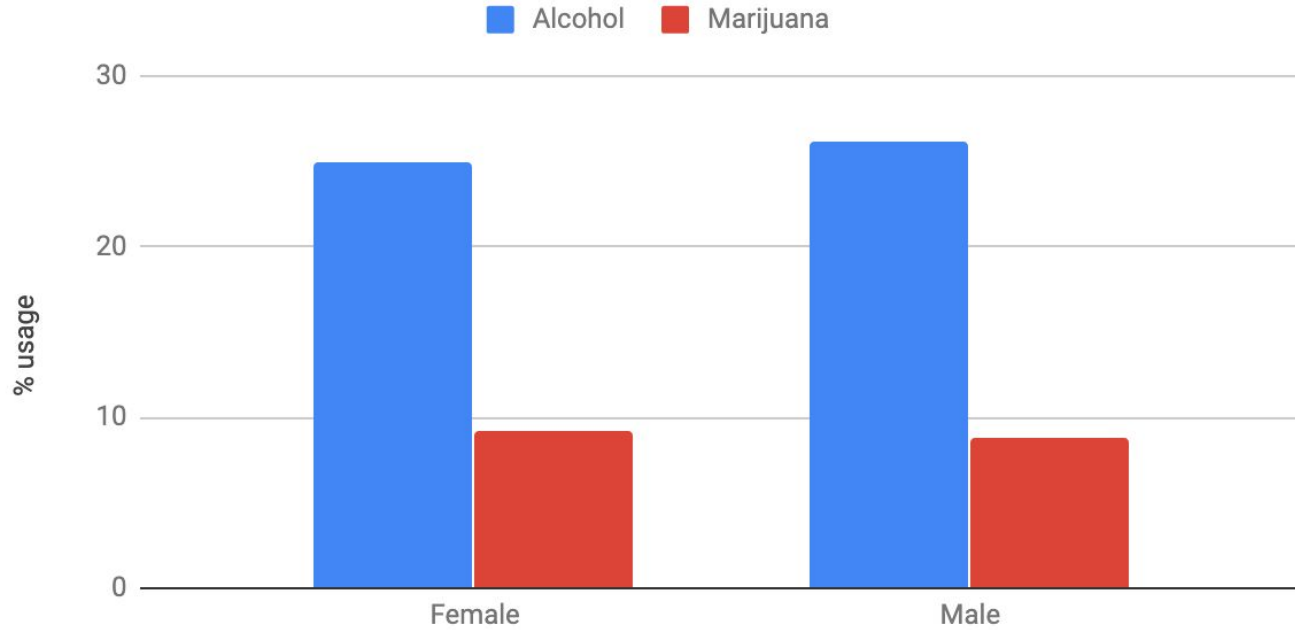
National sample: 56, 773 AAPIs

Alcohol and marijuana

Past-month use prevalence

Age and gender

% of Alcohol and Marijuana Use by Gender



Substance Use by Gender

Study found that females had a higher % usage of marijuana and males had a higher % usage of alcohol in the past month.

Chang et al. 2012-Gender and Alcohol and Marijuana Use

- AA males and females that drink heavily were found to have higher rates of depression and poor mental health
- greater substance use disorders were associated with heavy drinking among males
- depressive and anxiety disorders were associated with female heavy drinkers
- Cause speculated to be related to the support network and level of acculturation

Genetic Risk Factors

- Patients with *ADH1B*2* alleles are most protected from alcohol dependency
- individuals with *ALDH2*2* allele were more likely to have negative physiological alcohol expectancies and engage in lower alcohol use
- found that in the LA population specifically, Japanese and Chinese populations had highest prevalence

Stimulant Use Disorder

- I. Cocaine (Crack)
- II. Amphetamines
 - A. D-Amphetamine, Methamphetamine, methylphenidate
 - B. Hallucinogens → MDA, MDMA (ecstasy), DOM (dimethoxyamphetamine)

Cocaine- Moloney et al. 2008

- less commonly used than marijuana and alcohol
- study found lifetime use to be 62.5% for Southeast Asian in a sample population, followed by Filipino (57.9%) and Japanese and Korean (52.9)
- upon interview, many respondents stated that usage helped with coping with acculturation and emotions of not fitting in after immigration to US
- commonly used in club/dance/rave scene

Methamphetamine

- lower rates overall for all AAPI
- elevated rates of methamphetamine abuse and dependence among Hawaiian and Pacific Islanders (9%)
- Argued to be due to location of drug trade routes among these particular islands
- could also be attributed to certain AAPI cultural beliefs→ some traditional medicines are alcohol based or stimulants for an energy boost

Stimulant Physiological Effects

- Increased alertness, vigilance, and concentration
- increased mental acuity
- increased euphoria and self confidence
- decreased need for sleep, appetite
- arouses the fight or flight system

Stimulant Psychological Effects

- Used for endurance, feeling of well-being, alleviation of hunger
- increased sexual desire, but cocaine can decrease performance
- increased anxiety and paranoia
- increased convulsions, tremors, seizures
- increased psychosis and delirium
- increased locomotion
- decrease in judgement

Wu et al. 2011- Ecstasy Wave

Current wave of ecstasy use among AA adolescents due to the rave and club drug scene

Examined 996 AA adolescents and 1,108 AA young adults

National survey found that 17.9% of AA adolescents use ecstasy

Older age and poor parent-child communication identified as a risk factor, with addition of low SES

High-density metropolitan area increases an Asian American adolescent risk of initiating ecstasy use

Nicotine Use Disorder

Study using national data

-60% of adult males in China and Korea smoke

-17% of the AAPI population smoke

reduced smoking rate may be due to the selection of Asian immigrants who are more educated and have higher incomes

AAPI men are more likely to smoke as compared to AAPI women

Trends for Nicotine Addiction

- lack of ability to speak english
- recently immigrating to the U.S
- Southeast Asian Heritage
- adolescent AAPI
- Current research focuses on Chinese, Korean, and Vietnamese populations, so little is known about the smoking rates among other Asian subgroups

Opiate Use Disorder

Prescription Pain Relievers

- Hydrocodone
- Oxycodone
- Percocet
- Vicodin
- Morphine
- Codeine
- Fentanyl*

Illicit Opioids

- Heroin

Maintenance Medications

- Methadone

Opiates

The body naturally releases several different opioids during behaviors like exercising, eating, and socializing

When these opioids attach to receptors they can:

- Suppress pain
- Slow breathing
- Produce a sense of calm

Opioid Crisis

- 1980, Kathleen Foley stipulated that benefits of opioid therapy outweighed addictive risks
- Opioid manufacturers started to aggressively market on TV and newspapers
- OxyContin, Fentanyl and heroin prescriptions peaked due to low cost
- exacerbated by lack of patient compliance to treatment and lack of patient-physician communication on risks

Opiate Addiction

-Opioid use is habit-forming, especially when opioids are not taken as prescribed

Opioid addiction can be described using three basic components:

- Overwhelming psychological desire to use opioids
- Increased tolerance to opioids
- Withdrawal symptoms when opioids are unavailable

Study on Asians in US and Asia

- found that the Hmong population has the highest percentage of heroin users in both native country and U.S
- Among the Hmong of South-East Asia, the estimated prevalence of opiate dependence in Laos, Thailand, and the USA is 10%, 15%, and 3%
- Clinic in Minnesota observed 70% relapse but found that Hmong were more responsive to methadone treatment than other AAPI subgroups
- not much research done on other AAPI subgroups

Downers/Depressants

Benzodiazapine

- Depress the Central Nervous System (CNS)
- Reduce heart rate, breathing rate, blood pressure
- Mild doses cause mild euphoria
- High doses can cause depression, drowsiness, confusion, lack of coordination, irrational behavior



**NO CREDIBLE STUDIES ON ASIANS AND
BENZODIAZEPINE.**



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Factors that Influence Substance Use

Genetic and Biological Factors

ADH2

-atypical alcohol dehydrogenase mechanism that increases capacity to convert alcohol to acetaldehyde

ALDH2

-deficiency in the liver enzyme alcohol dehydrogenase

Heredity

-Family and adoption studies have found a significant and hereditary contribution to alcoholism

-transmission of genes for impaired alcohol metabolism

Psychological Factors

- Self esteem
- Immigration
- Pressure to succeed
- Prenatal/Postnatal
- Live with other people that do drugs
- Low SES environment

Acculturation Factors

Acculturation—a minority group's adoption of the “cultural patterns” of the host society

-assimilation to new host society might increase exposure to drugs and alcohol

Acculturation Stress- conflicting values between parental traditional culture and newly assimilated culture

Moloney 2009 → Acculturation of Drug and Alcohol Use

Conducted face-to-face interviews with 206 respondents

- 52% male (n=108) and
- 48% female (n=98)
- median age was 23

Respondents fell into 3 categories:

- Substance use as result of acculturation stress
- Substance use as a result of adopting American culture
- Substance use as mundane and normal, not problematic at all

Perspectives of Drug Use Shape Personal Preference

- Study found children less likely to use alcohol if their parents had been impacted negatively by alcohol
- Respect for parents increased if children did not witness heavy alcohol use by parents or by older siblings
- More likely to use if peers and others at school drank alcohol
- Take away: Familial and peer experiences greatly impact personal usage

Cultural Factors for Patients with Mental Health Issues

- lack of education and understanding
- shame
- traditional AAPI response
 - denial or attempting to
 - handle problems within the family itself
- significant emphasis on appearance of normal functioning
- general societal stigma

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

Consequences of Addiction-Comorbidity

Self-medication hypothesis:

- substance abuse begins as a means to alleviate symptoms of mental illness

Causal effects of substance abuse

- Substance abuse may increase vulnerability to mental illness

Common or correlated causes

- the life processes and risk factors that give rise to mental illness and substance abuse may be related or overlap

Consequences of Addiction-Social

- loss of familial system
- loss of self
- decrease in self esteem
- increase rate of suicidal thoughts
- decrease in motivation to participate in activities

Barriers to Treatment

-limited access to care because of cost, awareness that care exists, or because there is lack of actual services that can be accessed

lack of culturally competent services tailored to specific AAPI language, cultural beliefs, and values

lack of evidenced-based programs that have demonstrated to be effective in the treatment of addictive disorders among AAPI

Culturally Appropriate Treatment

- treatment programs that are multicultural and multilingual
- creating alternative 12-step groups that focus less on confrontation and more on support and education, need to address issues of being unable to share personal experiences in group, privacy
- focus on medications for some subpopulations and inability to rely on anyone other than doctors
- trusted member of the Asian community present at or conducting these support groups might be helpful
- Working with the families, separately, even before the client is ready to come in
- consultation with local community cultural experts

AAPI have been shown to prefer acceptance of treatment that simultaneously address medical and emotional problems

Future Improvements

- increased participation in research
- a large representative sample of the diverse ethnic AAPI
- having samples that have large representation from both genders and from both foreign-born and US-born AAPI
- Longitudinal studies of people immigrating and then acculturating to the US
- educating clinicians who work with various ethnic populations to understand the difference in prevalence and need for screening