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INCREASED INCIDENCE OF SUBSTANCE USE AND SUBSTANCE USE DISORDERS
AMONG MEXICANS THAT HAVE MIGRATED TO THE UNITED STATES

by

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ABSTRACT

The United States is becoming increasingly older and more racially and ethnically diverse, with Mexican Americans adults aged 65 and over becoming the frontrunners in population growth. Substance use disorders are high among this particular population, with alcohol and tobacco being the most common culprits. Previous research suggests that the prevalence of drinking and smoking among Mexican Americans is increased compared to Mexicans living in Mexico, and substance use rates are highest in those most accustomed to United States culture. While acculturation may initially increase exposure to healthcare options, Mexican Americans are disproportionately uneducated and have lower socioeconomic status than white non-Hispanic Americans. They thus have limited access to health insurance and affordable healthcare, and therefore have decreased substance abuse education and treatment. Additionally, Mexican immigrants are exposed to financial and emotional stressors that might cause them to begin using harmful and addictive substances. A better understanding of how American societal factors influence immigrant populations to initiate or increase negative health behaviors is needed to solve the long-standing and worsening substance abuse problem in the United States.

SUBSTANCE ABUSE

Substance dependence is defined as a chronic illness in which one has a compulsion to find and take a substance, is unable to control or limit intake, and develops a negative emotional state such as irritability or anxiety when they cannot gain access to the substance. Drug use begins as an impulse control disorder, in which one feels increased tension arousal, causing them to act impulsively. Initially, this behavior results in rewards in terms of relief or pleasure, yet it ends in them feeling regretful or guilty. As duration of use progresses, substance use evolves into

a compulsive disorder with persistent and recurring obsessive thoughts about the substance characterized by feelings of anxiety and stress. This causes them to engage in more frequent use in order to prevent or reduce these feelings. In turn, the user becomes dependent on and addicted to the substance (Koob, G.F (2011).

Addiction impacts both the physical and mental health of the addicted individual. A study using neuroimaging have concluded that individuals affected by addiction have a dysfunctional prefrontal cortex, which negatively impacts their sense of self-control and self-awareness (Goldstein & Volkow, 2011). This contributes to their development of compulsive behavior and causes them to be in denial of their illness and their needs for treatment. Moreover, participants in this study demonstrated a deficiency in their ability to maintain their motivational arousal and thus have decreased affinity for engaging in goal-driven behavior. These psychopathological changes often translate into serious problems in fulfilling functional roles in society such as educational attainment or successful employment, both leading to poorer functional outcomes and quality of life (Rohde et al., 2007).

Aside from its impact to the addicted individual's own mental and physical well-being, addiction has shown to have a profound impact on one's personal relationships. The negative effects of substance abuse on marriage have been well documented with drug and alcohol addiction having been linked to both decreased levels of marital satisfaction and increased marital aggression (Homish et al., 2008). Lee et al. (2011) found family members of addiction patients to have poor psychological well-being due to the stress involved with their relative's substance abuse. The majority of the sample reported they had been affected socially, emotionally, and financially by the patient's addiction. Ray et al (2009) describes how family members of alcohol or drug dependent persons have a significant health care cost burden, one

that is even higher than family members of people with other chronic medical conditions like diabetes or asthma.

SUBSTANCE ABUSE IN THE UNITED STATES

Substance abuse also has a substantial burden on society as a whole with societal expenditures on substance abuse complications and treatment costing the United States more than 700 billion dollars each year (Caulkins et al., 2014). The National Survey on Drug Use and Health (SAMHSA) conducts the National Survey on Drug Use and Health (NSDAH) annually that provides nationally representative data about the use of substances such as tobacco, alcohol, and other illicit drugs as well as substance use disorders to allow researchers, clinicians, and the general public to learn about and improve behavior health issues in the United States. From their most recently published study in 2019, 55 percent of adults aged 26 and up (or 119.1 million people) drank alcohol in the month in which the survey took place, and 24.5 percent of adults 26 or older admitted to being binge drinkers. Additionally, 14.5 million adults aged 25 or older reported having a diagnosed substance abuse disorder during the past year, and 11 million of this group specified having an alcohol use disorder. Among respondents from this age group, only 11 percent (or 1.6 million people) of individuals with a substance use disorder actually received any treatment in the past year. Cigarette smokers aged 26 years and older were also surveyed, and 62.5 percent (or 24.6 million people) smoked cigarettes daily in the month in which the survey took place. Of these, 42 percent smoked one or more packs per day (SAMHSA, 2020).

The number of persons with a substance use disorder in the United States is expected to have increased at a faster rate over the past two years given the elevated emotional distress placed on mentally ill individuals during the COVID-19 pandemic. Because of this increase in

the burden of mental health disorders and substance use disorders, we have entered a critical moment in time in which treatment for substance addiction needs to be expanded to meet the needs of those living in differentially impacted communities like rural and under-resourced areas (Warfield et al., 2021). The high prevalence of substance abuse in the United States is an alarming public health concern as the use of alcohol and tobacco can have serious implications for health, mortality and morbidity. The next section outlines specific health risks of two types of substance abuse that are prominent in North America; alcohol and tobacco use.

TOBACCO

In the past decade, tobacco was confirmed to be responsible for 12% of all deaths and 22% of all cancer related deaths in adults aged 30 years or over across the globe (World Health Organization, 2012). Cigarette smoke contains known carcinogens that can cause alterations in DNA via methylation, the addition of a methyl group onto DNA. These methylated genes have been linked to a variety of cancers, primarily lung, pancreatic, colon, and breast cancer (Li, M.D., 2018). Smoking cigarettes is the most prominent risk factor for lung cancer, and approximately 87% of lung cancer deaths have been traced to smoking cigarettes in the United States (Zon et al. 2009). According to the American Cancer Society, lung cancer is the most dangerous type of cancer in both men and women as it causes more deaths in the United States than any other type of cancer, making up nearly 25% of all cancer deaths. (American Cancer Society, 2021).

Additionally, cigarette smoking has been strongly and consistently associated with increased risk of other visceral cancers, including cancer of the larynx ($R^2 = 0.67$), esophagus ($R^2 = 0.41$), urinary bladder ($R^2 = 0.42$), kidney ($R^2 = 0.35$), and colorectum ($R^2 = 0.31$) (Ray et al.,

2010). Chronic cigarette exposure is also the primary cause of chronic obstructive pulmonary disease (COPD) pathogenesis not only in smokers, but also in non-smokers involuntarily exposed to second hand smoke (Leberl & Taraseviciene-Stewart, 2013). COPD is recorded to be the 4th largest cause of death in the world, yet it is very much preventable with approximately 95% of COPD cases being caused by tobacco use (Barnes et al, 2003; Marçôa et al, 2018.)

Smoking prevalence has additionally been associated with psychiatric disorders such as schizophrenia and depression, which also cause increased vulnerability to tobacco addiction. Twin studies have proved that genetic and environmental factors as well as gender play a significant role in determining smoking initiation and persistence. However, cigarettes contain a highly addictive chemical called Nicotine that directly leads to the development of dependence. (Li, 2018). Nicotine exerts its effect by binding to receptors in the brain that are responsible for releasing dopamine and other neurotransmitters that give the body pleasurable sensations. The release of these neurotransmitters that occurs when nicotine enters the brain cause smokers to begin to depend on tobacco to regulate their arousal and mood or to relieve symptoms of withdrawal (Schwartz & Benowitz, 2010).

ALCOHOL

Alcohol use, especially that over recommended limits can have harmful effects on the human body and is one of the most prominent risk factors for population health across the globe. Excessive alcohol use resulted in approximately 3 million deaths worldwide in 2016, making up 5.3% of all deaths. (World Health Organization, 2019). Cancer is among the leading causes of mortality and morbidity worldwide, and alcohol consumption has been associated with carcinogenesis in various locations of the body. Its carcinogenicity comes from acetaldehyde, a

chemical derived from alcohol metabolism in the liver that has been linked to initiation, promotion, and progression of tumors in several different forms of cancer (Eriksson, 2013). Alcohol consumption has proven to be a risk factor for squamous cell carcinoma of the upper aerodigestive tract (malignancies of the oral cavity, oropharynx, hypopharynx, larynx, and oesophagus), although this is more prominent in patients who drink alcohol and smoke tobacco together, as alcohol acts as a solvent for tobacco carcinogens. Quitting drinking for 20 years or more was found to reduce the risk of developing cancer of the oral cavity (OR = 0.45) as well as laryngeal cancer (OR = 0.69) (Hashibe et al., 2013). Heavy alcohol use is correlated with both non-cardia gastric cancer and colorectal cancer, the risk increasing with increasing alcohol intake (Zaridze, 2013). In addition, liver cancer, the leading cause of cancer death among both men and women, has also been attributed to alcohol use, as alcohol can lead to chronic inflammation of the liver, or cirrhosis, which in turn is associated with heightened probability of being diagnosed with liver cancer. (Torre et al., 2015; Maisonneuve, 2013). Furthermore, moderate alcohol use has also been linked to cancer of the kidneys and has been found to augment the risk of breast cancer in women (Boyle, 2013; Pelucchi & Galeone, 2013).

Drinking alcohol can also cause non-malignant disease. While moderate alcohol use has been found to reduce the risk of developing heart conditions such as coronary artery disease and congestive heart failure, heavy drinking can have detrimental effects on the human heart. Excessive drinking has been found to be directly correlated to cardiomyopathy, a disease of the heart muscle that can eventually lead to heart failure and death (Frishman, 2013). Alcohol consumption influences vascular disease, and consistent alcohol intake above suggested limits augments the likelihood of developing hypertension, which is a risk factor for both ischemic and hemorrhagic stroke (Mukamal, 2013). Alcohol drinking also impacts the gastrointestinal mucosa,

damaging the epithelium and contributing to conditions like GERD and GI bleeding. Alcohol use induces inflammatory diseases like pancreatitis and hepatitis and is a risk factor for development of type II diabetes (Greer & Yadav, 2013).

Lifetime alcohol consumption can also have permanent effects on the central nervous system, causing irreversible damage to cognitive functioning and even changes to the structure of the consumer's brain. The most important of these neurologic conditions is Wernicke-Korsakoff syndrome, a cognitive disorder seen most commonly in alcoholics (Harper & Matsumoto, 2005). Vitamin deficiencies are frequently common in alcohol patients as ethanol and interfere with absorption of nutrients. One of these is thiamine, an important nutrient for the brain. A deficiency in thymine can lead to the development of Wernicke Korsakoff Syndrome, which is classically characterized by confusion, gaze palsies, gait problems, nystagmus, and even amnesia (Thompson, 2000). While there isn't an explicit addictive component of alcohol similar to the presence of nicotine in cigarettes, there are other factors that contribute to alcohol cravings. Alcohol impairs the autonomic function of the brain, altering mood and cognition. Thus, alcohol has been found to have a dampening effect on psychological and social stressors, and individuals continue using alcohol to avoid the negative feelings that come along with these stressors (Maars, 2012).

SUBSTANCE ABUSE IN OLDER ADULTS

Older generations have been misrepresented in their use of harmful substances, and substance abuse disorders among older adults have been therefore left undiagnosed and untreated. Historically, young adults and adolescents have demonstrated higher rates of alcohol and tobacco consumption than older cohorts, however, substance use disorders among older

generations have been under-identified. The baby-boom generation (people born between 1946 and 1964) has demonstrated substantially higher rates of substance use than older generations as they came of age during a time of changing attitudes toward alcohol and drug use. Thus, substance use disorders among older persons have emerged as a major public health concern that is expected to increase as the baby-boom generation continues to age (Wu et al., 2011; Kuerbis et al., 2014). Approximately 80% of adults 65 years and over report some form of substance use during their lifetime. The most commonly used substance by adults over 65 is alcohol, followed by tobacco, and there is a substantial proportion of this population who are binge drinkers (Moore et al., 2009; Kuerbis et al., 2014). Alcohol use disorders remain the primary substance abuse disorder in older adults, and demographic trends display significant increases in unhealthy alcohol use and the need for alcohol abuse treatment in adults aged 50 and over since 2005 (Han et al., 2017; Why is the prevalence of substance use disorders so high in this age group? Aging is often associated with increased social, psychological, and physical health problems, and these conditions worsen the risk of older persons developing problematic use of substances such as alcohol, tobacco, or prescribed drugs. For instance, whether it be depression, social isolation, lack of mobility, or painful medical conditions, substances such as alcohol are used as coping mechanisms to deal with the difficulties of aging (Gossop & Moos, 2008).

The effects of alcohol on older adults have an increased effect on overall health because aging is marked by many physiological changes that cause there to be greater health risks attributed to alcohol abuse in older adults than younger adults. Older adults are much more sensitive to alcohol and other drugs due to the metabolic changes one faces as they age. Because metabolism decreases with age, ingested substances like drugs and alcohol are processed more slowly by the body and therefore remain in the body for longer periods of time, prolonging

intoxication. Chronic drinking can trigger or worsen the physiological changes and illnesses that come along with the aging process, causing increased risk of conditions such as stroke, hypertension, cirrhosis, diabetes, and malnutrition (Alpert, 2014).

Another potential hazard for this age group is the combination of alcohol with prescribed drugs, as the increased incidence of chronic disease among elders points to increased use of prescribed medications. (Castillo et al, 2006). Pringle et al (2005) found that 77% of prescription drug users were taking at least one alcohol intolerant drug, and 5.5% of all medication users were combining 5 or more alcohol intolerant drugs with alcohol. And more recently, Haighton et al. (2018) documented frequent combined alcohol and medication use among older people without approval by their family doctor. Significant medical problems can result from combining alcohol, as alcohol has been proven to increase the sedative effects of several types of prescribed drugs, and combination of alcohol with NSAIDS can lead to gastric inflammation or bleeding or even liver damage (Pringle et al., 2005). Despite its increased prevalence in this cohort, substance abuse often goes undiagnosed among older people, as its symptoms can be very similar to symptoms from other medical disorders that are common in old age like neuropsychiatric problems or functional decline. Additionally, diagnostic criteria of substance abuse disorders that are applicable to younger individuals may underestimate addiction in elders. For example, many diagnostic questions ask if the patient is lonely or withdrawn from social or occupational activities, which could be the normal for elders who live alone, are retired or have functional limitations (Clay, 2010).

The majority of the substance abuse policies in the United States adhere to the needs of younger populations, primarily adolescents. Older adults are therefore less informed and more sensitive to the stigma attached to substance abuse, and they aren't as likely to report or seek

professional help for their symptoms of substance misuse as younger generations are (Chhatre et al., 2017; Gossop & Moos, 2008). The next section provides an overview of substance abuse among Mexicans, both in Mexico and the US, outlining prevalence and specific risk factors.

SUBSTANCE ABUSE AMONG MEXICANS AND MEXICAN AMERICANS

Levels of alcohol consumption in Mexico are high, particularly for binge drinking, and according to the 2016-2017 National Survey on Drug, Alcohol, and Tobacco Use, alcohol consumption in Mexico has substantially increased since 2011 (Villatoro et al., 2017). Mexico is also among the top five Latin American countries with the highest prevalence of tobacco consumption. While lifetime tobacco use is higher in the United States compared to Mexico (74% compared to 60%), the burden of disease pattern in developing countries like Mexico differs greatly from the United States and other high-income countries with higher prevalence of tobacco usage and more intense smoking patterns (Degenhardt et al., 2008; Reynales-Shigematsu et al., 2020). Mexico falls behind the United States in its use of programs and regulations that prevent unhealthy lifestyles like smoking cigarettes and drinking alcohol, which might cause one to hypothesize that Mexico would exhibit patterns of higher tobacco and alcohol consumption. However, Wong et al. (2008) discovered that the United States displays trends that indicate a much healthier lifestyle than Mexico when it comes to use of tobacco and alcohol.

Although the prevalence of alcohol and drug use and dependence is shown to be much lower in Mexico than the United States, some have suggested that the gap is beginning to close due to the nations' close geographical proximity and cultural overlap (Room, 2005). In order to examine this theory, Borges et al. (2009) documented the prevalence of substance use and substance use disorders in the regions of Mexico closest to the United States border. Results

indicated that the 3 most northern urban areas of Mexico - Tijuana, Ciudad Juarez, and Monterrey - had the highest rates of alcohol and drug use in Mexico. Moreover, individuals who were return US migrants or relatives of migrants had higher degrees of alcohol and drug use and alcohol and drug dependence compared to other Mexicans (Borges et al, 2009). The following sections outline various explanatory factors related to increased incidence of substance use and substance use disorders among Mexicans that have migrated to the United States, including negative acculturation, the migration experience, and inferior access to healthcare.

NEGATIVE ACCULTURATION

Acculturation has been defined as the transmission of cultural norms in which a person of Mexican descent experiences changes after coming into regular contact with mainstream United States culture. (Castillo et al, 2008). Acculturation can be a positive experience for migrants but can also have negative effects on behavior and can consequently become harmful to the acculturated individual. This phenomenon is known as Negative Acculturation and occurs when migrants adopt the unhealthy habits of the population. In the United States, this includes heavy use of alcohol and tobacco, poor diet, and decreased physical exercise (Abraido-Lanza et al, 2005). Acculturation can be assessed via multiple different measures including those of nativity, generational status, ability to speak the English language, contact with Anglo-Americans, and participation in cultural practices (Cabassa 2003).

Borges et al (2006) used data from the Mexican National Addiction Survey and the U.S. National Alcohol Survey to analyze the association between immigration and increased levels of acculturation and the prevalence of subclinical alcohol dependence (SAD) and alcohol dependence syndrome (ADS). Their findings show that the incidence of having SAD and ADS

increased as the duration of exposure to US culture increased. Of the three levels of nativity status surveyed, US-born Mexican Americans displayed the highest prevalence of SAD (17.4%), and this prevalence decreased for Mexican-born US immigrants (11.7%) and decreased again for Mexicans living in Mexico (9.8%). The authors also found that when compared to those that have only been living in the US for 6 years or less, US-born Mexican Americans had increased risk for ADS (OR = 4.74, 95% CI = 1.44-15.55), and those odds became significantly elevated for those highest on the acculturation scale (OR = 7.15) (Borges et al., 2006).

Relative to US-born Mexican Americans, migrants from Mexico and Mexican residents with a migrant in their family or previous migration experience are less likely to begin smoking and more likely to quit smoking tobacco (Tong et al. 2012). Masel et al. (2006) also examined the relationship between acculturation and health behaviors like smoking and drinking in Mexican Americans, but centered their research on older Mexican Americans over the age of 65. They used language as a measure of acculturation and noted that respondents who used the English language the most were more likely to be a current or former smoker or alcohol drinker than those who rarely or never used English. (Masel et al., 2006).

More recently, Pinheiro et al. (2018) describes assimilating into United States society as a “high-speed cancer transition” reporting higher mortality of tobacco- and alcohol-related cancers among Mexicans over 50 years of age that have immigrated to the United States. Because rates of cancer survival are substantially higher in the United States compared to Mexico, the increased mortality among Mexican Americans is likely attributable to them having elevated risk of cancer compared to Mexicans living in Mexico, and this is directly related to the dangerous habits immigrants adopt through the process of negative acculturation (Pinheiro et al., 2018).

THE MIGRATION EXPERIENCE AND POSSIBLE LINKS TO SUBSTANCE ABUSE

Mexican families often migrate to the United States in stages, where one or a few members migrate at a time in a concept known as serial migration. Because of this, Mexican immigrants are often separated from their children and other family members, leading to high levels of acculturation stress and associated depression. (Rusch & Reyes, 2012). Many Mexican immigrants and migrant workers are exposed to ethnic discrimination and have a difficult time adapting to a different culture or keeping a steady job. They face fear of deportation, language barriers, and economic strain, causing them to feel worried and stressed. (Borges et al., 2009; Rusch & Reyes, 2012) Many migrants also report poor family functioning and a loss of the social support system they used to have in Mexico. (Familiar et al., 2011).

The stress and worry faced by Mexican migrants has been linked to increased prevalence of psychiatric disorders, predominantly anxiety and depressive disorders. Borges et al. 2014 demonstrates a sharp increase in the incidence of anxiety symptoms and anxiety disorders in Mexicans with increasing migration experience. In a sample of 1630 respondents living in urban areas of Mexico, there was increased risk for symptoms of depression in return migrants and increased overall prevalence of depressive and anxiety symptoms in relatives of migrants when compared to respondents without any migration experience (Familiar et al., 2011). Mood anxiety disorders are related to a higher incidence of lifetime substance abuse, explaining the increased usage of tobacco and alcohol in Mexicans who have moved to the United States. (Rudestine et al., 2020). US Hispanics (people of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture) in general have a lower socio-economic status and increased financial stress, and alcohol and drugs are taken in order to relieve this stress. (Borges et al., 2009).

Mexican Americans living on the border are exposed to under-education, with over 45% of sampled Mexican and American men having less than a high school education, as well as poverty, both of which are proven predictors of cigarette smoking. Compared to participants having less than a high school education, Mexican Americans with some college or technical/vocational school education and beyond had lower odds of being a smoker (Bandiera et al., 2018). Based on previous findings, the increased risk of Mexican migrants developing alcohol and drug use problems in the United States is associated with the hardships and stressful situations they face in this country, and public health measures should be implemented to help these individuals resolve and cope with these stressors (Borges et al., 2009).

ACCESS TO HEALTHCARE

While it is evident that acculturation may increase access to healthcare among Mexican immigrants, disparities still exist in comparison to non-Hispanic white Americans (Jasso et al., 2004). Durden and Hummer (2006) found that all Hispanic subgroups in the United States were less likely to report access to a usual source of medical care in comparison to non-Hispanic whites, with Mexican Americans having the lowest percentage of persons reporting access to regular health care. The odds of having basic access to healthcare were 30% lower for Mexican Americans compared to non-Hispanic whites. Even after immigrant status and socioeconomic status were controlled, of all the Hispanic groups in America, Mexican Americans continued to stand out as having inferior access to and quality of sources of health care (Durden & Hummer, 2006).

There are several explanations for why this disparity exists. Lack of financial means for both uninsured and insured persons, the lack of insurance, misunderstanding of the US health

care system, and poor Spanish speaking abilities of most US doctors were found to be major deterrents to Mexican Americans seeking health care. Many immigrants also report frustration with the legal hoops they have to go through to obtain health insurance as well as frustration with the complicity of the United States healthcare system. Many are unfamiliar with our healthcare system's practice of requiring multiple appointments, referrals from a primary care physician, additional visits to multiple practitioners and specialists, as well as outpatient lab testing and pharmacy visits and are more used to the "one-stop shop" approach of healthcare in Mexico (Reininger et al., 2014).

More recently, Langeillier et al. (2020) compared the relationship between educational attainment and access to United States healthcare among Mexicans and Mexican Americans and found that foreign-born Mexicans in the United States having a college degree had significantly higher odds of having medical insurance and a regular health care provider than Mexicans who hadn't graduated high school. Mexican Americans are disproportionately uneducated compared to their non-Hispanic white counterparts with 53 percent of Mexican immigrants aged 25 not having a high school diploma compared to 8 percent of US-born adults, making them also disproportionately less accessible to healthcare services than their non-Hispanic counterparts (Israel & Batalova, 2019).

Because Mexican Americans are lacking in healthcare accessibility, they are less likely to consider getting help for substance abuse. Many immigrants do not seek treatment for their substance use disorder simply because they are unfamiliar with the complexity of the United States healthcare system. Some are unsure how to access these services due to their lack of finances or insurance, and some are unaware that such substance use treatment exists (Moya & Shedlin et al., 2009). Pinedo & Villatoro (2020) found that Hispanics living in the United States

are less likely to perceive a need for treatment for their substance use disorder than white Americans, which also contributes to their lower use of treatment services. Latinos who are still able to perform their work and home duties despite their drug or alcohol addiction may not think they require treatment because they are still aligned with traditional and cultural Latino values (Pinedo & Villatoro, 2020). Heavy drinking is also culturally normative for this population and therefore might not be perceived as a serious health issue (Moya & Shedlin et al., 2009). There is also a shortage of treatment options available to this population. Studies have shown there is a lower density of mental health services and substance abuse treatment facilities in areas along the US-Mexico border compared to non-border cities where the population of Hispanic Americans is lower. (Bensley et al., 2021).

IMPLICATIONS FOR U.S. SOCIETY

Americans are becoming increasingly older and more racially and ethnically diverse. As a result of improvements in life expectancy, the 2020 U.S. Census Bureau predicts that older persons will outnumber children in 2035. Because of this, immigration will become the primary cause of population growth for the U.S. Due to this increase in international migration, the American population is expected to become more racially pluralistic, with the Hispanic population projecting to almost double over the next 4 decades. The Hispanic population has already grown from making up 16.4 percent of the US population in 2010 to 18.5 percent in 2019, surpassing 60 million. (US Census Bureau, 2020). Mexicans make up the largest proportion of the Hispanic-origin demographic in the United States, accounting for 64% or almost two-thirds of all Hispanics. Mexico is also the largest country of origin in the total US immigrant population with Mexican immigrants making up almost 12 million of the nation's

total 40 million immigrants. This proportion becomes even larger when looking at the unauthorized migrant population with over 50% of the immigrants living in the country illegally being from Mexico (Gonzalez-Barrera & Lopez, 2013). It is projected that by the year 2050, the number of Mexican American adults over the age of 65 will have quintupled compared to what it was in 2012 (U.S. Census, 2014). The Mexican-American elderly population is growing exponentially, and with this comes a need for change. Given the rapid growth of this particular population, it is important to assess their experiences with the US healthcare system. Although Mexicans have greater access to health care services in the US than in Mexico, the Mexican-American population is disproportionately uninsured when compared to their non-Hispanic white counterparts. Mexicans living in the United states are disadvantaged when it comes to education and socioeconomic status which in turn reduce their access to health care services like primary care physicians, counseling services, and rehab facilities (Moya & Shedlin et al., 2009). This leaves them to be much more vulnerable to the dangerous effects of negative health behaviors like substance use. The increased use of harmful substances in Mexicans with prolonged exposure to American culture indicates that substance abuse among immigrants is a concerning public health issue for the US. A better understanding of the pathways through which migration to the United States may affect incidence of substance use disorders in the Mexican population is needed to inform public health efforts to reduce their impact.

RECOMMENDATIONS

Solving the substance abuse epidemic of Mexicans who are living in the United States begins with addressing the healthcare disparities in this country. Mexican immigrants and Mexican Americans born in the United States utilize substance use treatment far less than white

Americans. Since they are not as likely to receive treatment for the various types of substance abuse as discussed above, this population is also excluded from important preventative care that would allow them to avoid development of a substance disorder altogether. To influence this population to seek care, United States society should be rid of the challenges many Mexican immigrants face, including the financial, legal, cultural, or geographical barriers that make it feel impossible for them to find access to quality medical care. This means implementing benefits and programs for working families, those with lower socioeconomic status, immigrants, and the undocumented as well as facilitating their access to health insurance by increasing treatment options along the US-Mexico border (Bensley et al., 2021; Reininger, 2014). Immigrants should also be made aware of the laws and policies regarding immigration rights and the health and human services available to them (Moya & Shedlin, 2009). Implementing basic Spanish language requirements for medical professionals and training healthcare workers to know how to help Mexican Americans navigate the complex US healthcare system would dissolve the fear and confusion that deter many Mexican Americans from accessing healthcare services (Reininger, 2014). Future research should focus on identifying the qualitative aspects of the migrant experience that could be linked to increased substance use, and public health measures should be put in place to help immigrants cope with the financial and emotional stressors that cause them to feel the need to use substances to relieve this stress (Borges, 2009). Efforts should also be made to provide substance abuse education and treatment that is centered around the needs of elderly individuals in addition to ways for reducing the stigma associated with substance abuse. Ultimately, the health of Mexican Americans can substantially benefit from increased health promotion and intervention efforts.

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