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FY 2020 Houston EMA Ryan White Part A/MAI Service Definition Substance Abuse Services - Outpatient	
HRSA Service Category Title: RWGA Only	Substance Abuse Services Outpatient
Local Service Category Title:	Substance Abuse Treatment/Counseling
Budget Type: RWGA Only	Fee-for-Service
Budget Requirements or Restrictions: RWGA Only	Minimum group session length is 2 hours
HRSA Service Category Definition: RWGA Only	<i>Substance abuse services outpatient</i> is the provision of medical or other treatment and/or counseling to address substance abuse problems (i.e., alcohol and/or legal and illegal drugs) in an outpatient setting, rendered by a physician or under the supervision of a physician, or by other qualified personnel.
Local Service Category Definition:	Treatment and/or counseling HIV-infected individuals with substance abuse disorders delivered in accordance with State licensing guidelines.
Target Population (age, gender, geographic, race, ethnicity, etc.):	HIV-infected individuals with substance abuse disorders, residing in the Houston Eligible Metropolitan Area (EMA/HSDA).
Services to be Provided:	Services for all eligible HIV/AIDS patients with substance abuse disorders. Services provided must be integrated with HIV-related issues that trigger relapse. All services must be provided in accordance with the Texas Department of Health Services/Substance Abuse Services (TDSHS/SAS) Chemical Dependency Treatment Facility Licensure Standards. Service provision must comply with the applicable treatment standards.
Service Unit Definition(s): RWGA Only	<p>Individual Counseling: One unit of service = one individual counseling session of at least 45 minutes in length with one (1) eligible client. A single session lasting longer than 45 minutes qualifies as only a single unit – no fractional units are allowed. Two (2) units are allowed for initial assessment/orientation session.</p> <p>Group Counseling: One unit of service = 60 minutes of group treatment for one eligible client. A single session must last a minimum of 2 hours. Support Groups are defined as professionally led groups that are comprised of HIV-positive individuals, family members, or significant others for the purpose of providing Substance Abuse therapy.</p>
Financial Eligibility:	Refer to the RWPC's approved <i>Financial Eligibility for Houston EMA/HSDA Services</i> .
Client Eligibility:	HIV-infected individuals with substance abuse co-morbidities/ disorders.
Agency Requirements:	Agency must be appropriately licensed by the State. All services must be provided in accordance with applicable Texas Department of State Health Services/Substance Abuse Services (TDSHS/SAS) Chemical Dependency Treatment Facility Licensure Standards. Client must not be eligible for services from other programs or providers (i.e. MHMRA of

	<p>Harris County) or any other reimbursement source (i.e. Medicaid, Medicare, Private Insurance) unless the client is in crisis and cannot be provided immediate services from the other programs/providers. In this case, clients may be provided services, as long as the client applies for the other programs/providers, until the other programs/providers can take over services. All services must be provided in accordance with the TDSHS/SAS Chemical Dependency Treatment Facility Licensure Standards. Specifically, regarding service provision, services must comply with the most current version of the applicable Rules for Licensed Chemical Dependency Treatment. Services provided must be integrated with HIV-related issues that trigger relapse.</p> <p>Provider must provide a written plan no later than 3/30/17 documenting coordination with local TDSHS/SAS HIV Early Intervention funded programs if such programs are currently funded in the Houston EMA.</p>
Staff Requirements:	Must meet all applicable State licensing requirements and Houston EMA/HSDA Part A/B Standards of Care.
Special Requirements: RWGA Only	Not Applicable.

FY 2022 RWPC “How to Best Meet the Need” Decision Process

Step in Process: Council		Date: 06/10/2021
Recommendations:	Approved: Y: _____ No: _____ Approved With Changes: _____	If approved with changes list changes below:
1.		
2.		
3.		
Step in Process: Steering Committee		Date: 06/03/2021
Recommendations:	Approved: Y: _____ No: _____ Approved With Changes: _____	If approved with changes list changes below:
1.		
2.		
3.		
Step in Process: Quality Improvement Committee		Date: 05/18/2021
Recommendations:	Approved: Y: _____ No: _____ Approved With Changes: _____	If approved with changes list changes below:
2.		
2.		
3.		
Step in Process: HTBMTN Workgroup #2		Date: 04/20/2021
Recommendations:	Financial Eligibility:	
1.		
2.		
3.		

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**FY 2019 PERFORMANCE MEASURES
RYAN WHITE GRANT ADMINISTRATION
HARRIS COUNTY PUBLIC HEALTH (HCPH)**

**Substance Abuse Treatment
All Providers**

HIV Performance Measures	FY 2018	FY 2019	Change
A minimum of 70% of clients will utilize Parts A/B/C/D primary medical care after accessing Part A-funded substance abuse treatment services*	16 (57.1%)	17 (70.8%)	13.7%
75% of clients for whom there is lab data in the CPCDMS will be virally suppressed (<200)	18 (69.2%)	19 (82.6%)	13.4%
90% of clients will complete substance abuse treatment program	See data below		

***Overall, the number of clients who received primary care in FY 2019 was 17 (70.8%), with 13 receiving the services through Ryan White and 4 receiving the services through other insurance such as Medicare.**

Number of clients engaged in substance abuse treatment program during FY 2019: **24**

Number of clients completing substance abuse treatment program during FY 2019 (March 2019 to February 2020): **14**

Number of clients completing substance abuse treatment during FY 2019 who entered treatment in FY 2018: **3**

Number of FY19 substance abuse treatment clients who are receiving primary care through other insurance, such as Medicare: **4**

Number of FY19 clients engaged in substance abuse treatment who completed treatment after FY19: **3**

HCPH is the local public health agency for the Harris County, Texas jurisdiction. It provides a wide variety of public health activities and services aimed at improving the health and well-being of the Harris County community.

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Potential Influences of the COVID-19 Pandemic on Drug Use and HIV Care Among People Living with HIV and Substance Use Disorders: Experience from a Pilot mHealth Intervention

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Abstract

People living with HIV (PLWH) and substance use disorder (SUD) are particularly vulnerable to harmful health consequences of the global COVID-19 pandemic. The health and social consequences of the pandemic may exacerbate substance misuse and poor management of HIV among this population. This study compares substance use and HIV care before and during the pandemic using data collected weekly through an opioid relapse prevention and HIV management mobile-health intervention. We found that during the pandemic, PLWH and SUD have increased illicit substance use and contact with other substance-using individuals and decreased their confidence to stay sober and attend recovery meetings. The proportion of people missing their HIV medications also increased, and confidence to attend HIV follow-up appointments decreased. Optimal support for PLWH and SUD is critical during pandemics like COVID-19, as drug-related and HIV antiretroviral therapy (ART) non-adherence risks such as overdose, unsafe sexual behaviors, and transmission of infectious diseases may unfold.

Keywords HIV · COVID-19 · Substance use disorder · Mobile-health intervention

Resumen

Personas con VIH y con trastornos por abuso de sustancias son más vulnerable a las consecuencias de la pandemia: COVID-19. Dentro estas poblaciones, las consecuencias sociales y de la salud, causadas por la pandemia, pueden exacerbar el mal uso de las sustancias, y la adherencia a los antiretrovirales. Este estudio compara el abuso de sustancias y el cuidado del VIH, antes y durante la pandemia, usando datos colectados semanal de otro programa que también investigo la prevención entre personas que han recaído con el uso de opioides y que tienen VIH. Nuestro análisis encuentra, que durante la pandemia, incrementaron el uso de sustancias ilícitas, y contacto con otras personas que usan sustancias, y perdieron la capacidad de mantenerse sobrios, y tambien dejaron de asistir reuniones de recuperación/apoyo. También, el porcentaje de personas con VIH no siguiendo con sus planes de tratamiento de VIH, incrementó; perdieron su motivación en mantener sus citas médicos. Es muy crítico, durante una pandemia como COVID-19, tener recursos para personas que pertenecen a estas poblaciones, si no, casos de sobredosis, sexo sin protección y la transmisión de enfermedades infecciosas van a prevaler.

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Introduction

On March 11, 2020, the World Health Organization (WHO) declared COVID-19 a global pandemic [1]. COVID-19 is an illness caused by a novel betacoronavirus, SARS-CoV-2, which typically causes common cold symptoms and may cause severe pneumonia, respiratory failure, and even death [2]. Infection was first reported in late 2019 in Wuhan, China [3] and has since then spread rapidly across the globe from person to person through respiratory droplets [2].

Millions of Americans are experiencing the detrimental effects of this health, economic, and social crisis. Among the various marginalized communities who already suffer significant social and economic disadvantages and often live with poverty, health inequities, and other burdens are people living with HIV (PLWH) [4–6]. As the COVID-19 pandemic increases stress, anxiety, fear, sadness, and loneliness, PLWH, who are already disproportionately burdened by mental illness [7], are particularly vulnerable to worsening mental health. Conditions may be especially exacerbated among PLWH who have other medical comorbidities or poorly managed HIV (e.g. a low CD4 cell count or high viral load), and are more susceptible to severe illness from COVID-19 [8]. Poor mental health and social isolation are both strong risk factors for substance use disorders (SUDs), which also disproportionately affects PLWH [9, 10]. Increased substance use, which is highly correlated with risky sexual behavior and antiretroviral therapy (ART) non-adherence, has many dangerous consequences including overdose death and transmission of HIV and other blood borne diseases [11–15]. Therefore, it is important to monitor substance use behaviors among PLWH during the COVID-19 pandemic to prevent drug-related risks.

Medical providers and public health services have taken drastic measures to prevent the spread of COVID-19, including canceling face-to-face visits and even closing clinics altogether. Mobile-health applications may provide a useful tool to collect data and retain PLWH and SUD in care during pandemics like COVID-19. Prior to the introduction of COVID-19, an existing mobile-health application, called A-CHESS, was implemented among PLWH and SUDs in Wisconsin to reduce substance use and improve HIV outcomes. The A-CHESS platform, described in detail elsewhere [16], was developed by the Center for Health Enhancement System Studies at the University of Wisconsin-Madison to support people with opioid use disorders. Key features of A-CHESS include public and private discussion forums, cognitive behavioral therapy boosters, games and relaxation activities to distract from cravings, hepatitis C virus and HIV educational information, and more [16, 17]. The goals of this ongoing pilot project are to tailor the

A-CHESS application to meet the complex needs of PLWH and SUD and test the effectiveness among this population. The aims of this paper are to determine whether (1a) substance use, including alcohol, marijuana, and other illicit substances, and (1b) precursors to substance use, including confidence to stay sober, recovery support meeting attendance, and being around other people using drugs, have increased and (2a) HIV ART adherence and (2b) confidence to attend their next HIV appointment have decreased during the COVID-19 pandemic among PLWH and SUD enrolled in this pilot project.

Methods

Overview

Research coordinators identified PLWH and SUD who were at high risk for treatment failure at HIV clinics in Wisconsin through provider referrals and by reviewing clinic's administrative databases. Enrollment began March 2019 and ended March 2020. Study participants have access to all A-CHESS support tools and are delivered brief surveys weekly to assess their general health status, mood, social support, drug use, and ART adherence for 12 months.

Setting and Timeline

Wisconsin is among the many regions heavily impacted by COVID-19, changing everyday lives as the sequence of events unfolded in early 2020. On February 5, the first case of COVID-19 was detected in Wisconsin. As the number of confirmed cases rose to seven on March 12, the governor of Wisconsin declared a State of Emergency. The next day, on March 13, he ordered all public and private K-12 schools to close by March 18. That same day, the President of the United States addressed the nation and declared the pandemic a national emergency. As confirmed cases in Wisconsin reached 72 on March 17, the governor announced a statewide ban on all gatherings with more than 10 people, and 1 week later, on March 24, a 'Safer at Home' order went into effect, ordering the closure of all non-essential businesses and urging citizens to stay at home to reduce the spread of COVID-19. As of May 4th, 2020, there were 8599 confirmed cases state-wide, but health officials warn that many more people are likely infected [18].

This study compares drug and alcohol use and HIV care reported on weekly surveys completed 6 weeks prior to a State of Emergency being declared in Wisconsin, from January 31 to March 12, to surveys completed 6 weeks after the 'Safer at Home' order went into effect, from March 24 to May 4. All weekly surveys completed during the period

of rapidly spreading COVID-19 infections and changing government responses, from March 13 to March 23, were excluded because awareness and responsiveness to the pandemic varied substantially across the population.

Measures

Each week individuals were asked whether they used alcohol, marijuana, and other illicit drugs (including heroin, prescription opioids, cocaine, methamphetamine, or sedatives) in the past 7 days. They also were asked weekly whether they were around people using drugs when they were not expecting to be (yes or no), to rate their confidence to stay clean and sober on a scale from 1 (not confident at all) to 7 (very confident), and to rate their recovery support meeting attendance on a scale from 1 (no meetings) to 7 (many meetings).

Two HIV outcomes were assessed. First, individuals were asked on how many days in the past week they missed a dose of their HIV medications. Responses were dichotomized as < 2 days or ≥ 2 days, as missing 2 or more days in 1 week will likely cause viral rebound [19, 20]. Second, they were asked to rate their confidence to keep their next appointment with their HIV care provider on a scale from 1 (not confident at all) to 7 (very confident).

Statistical Methods

Mixed effects logistic regression models, using cluster-robust standard errors to account for repeated surveys by individuals, were used to determine the odds of using alcohol, marijuana, and other illicit drugs before and during the pandemic, as well as the odds of being around people using drugs when they were not expecting to be and the odds of missing their HIV medication on ≥ 2 days. Incidence rate ratios (IRRs) from mixed-effects Poisson regression, using cluster-robust standard errors, were used to compare individuals' confidence to stay clean and sober, recovery support meeting attendance, and confidence to keep their next HIV appointment. All regression models adjusted for gender, race, age, baseline employment status, whether they have ever been incarcerated, whether they have been diagnosed with a mental health disorder other than SUD, and whether they completed surveys during both study time periods or just one. A visual inspection of line graphs was used to understand trends before and during the pandemic. Chi-square and Fisher's exact tests were conducted to compare baseline characteristics between individuals included in the pre-pandemic sample and those in the later period. To test our directional hypotheses, we used a one-tailed test and $\alpha = 0.05$ to determine statistical significance. All analyses were conducted in Stata/SE 16 [21].

Results

Between January 31 and March 12, 2020, 60 individuals completed 194 weekly surveys, and between March 24 and May 4, 2020, 43 individuals completed 148 weekly surveys. The number of surveys taken by each individual ranged from 1 to 6 in each time period, and 39 individuals completed surveys during both periods. Among the 64 unique individuals included in this analysis, 75% were male, 59% were Black or African American, 9% were Hispanic or Latino, 66% had ever been incarcerated, 39% were employed at baseline, 39% had a spouse or significant other, 70% were ever diagnosed with a mental health disorder other than SUD, 8% were on medication-assisted treatment for addiction, and the mean age was 49 (Table 1). There were no statistically significant differences between those included in each study period.

During the COVID-19 pandemic, there was no difference in the proportion of people using alcohol (41%) or marijuana (32%) compared to before the pandemic (Table 2). However, there was an increase in the proportion of people using other illicit substances (including heroin, prescription opioids, cocaine, methamphetamine, or sedatives), increasing from 10 to 18%. After adjusting for demographics, study participants were 2.09 times more likely to use other illicit substances ($P = 0.181$). During the pandemic, the proportion of people reporting being around people using drugs

Table 1 Baseline demographics of analytical sample (N = 64)

	N (%)
Male	48 (75)
Race	
White	22 (34)
Black or African American	38 (59)
Mixed	1 (2)
Other	3 (5)
Hispanic or Latino	6 (9)
Ever incarcerated	42 (66)
Employed at baseline	25 (39)
Has a spouse/significant other	25 (39)
Receiving medication-assisted treatment ^a	5 (8)
Diagnosed with a mental health disorder other than SUD	45 (70)
Mental health disorders	
Anxiety/social anxiety	19 (30)
Bipolar/manic depression	11 (17)
Depression	33 (52)
Panic disorder	1 (2)
PTSD	5 (8)
Other	7 (11)

^aOne individual was on Methadone, three were on Vivitrol, and one was on Suboxone

Table 2 Number (%) of surveys reporting alcohol/drug use and HIV risks before and during the COVID-19 pandemic

	Before pandemic (N = 194)	During pandemic (N = 148)	Odds ratio	Adjusted ^a <i>P</i> value
Alcohol	79 (41%)	60 (41%)	0.974	0.480
Marijuana	62 (32%)	47 (32%)	0.474	0.291
Other illicit drugs ^b	20 (10%)	27 (18%)	2.09	0.181
Around people using drugs	12 (6%)	18 (12%)	2.53	0.060
Mean confidence rating for staying clean and sober	5.35	4.77	0.886 ^c	0.007
Recovery support meeting attendance rating	3.02	2.24	0.727 ^c	0.001
Missed ART dose on 2 or more days of the week	10 (5%)	18 (12%)	2.81	0.042
Mean confidence rating to keep next appointment with HIV care provider	6.89	6.50	0.918 ^c	0.021

Bold: statistically significant at $\alpha=0.05$ using a one-tailed test

^aAdjusted for gender, race, age, baseline employment status, whether they have ever been incarcerated, and whether they have been diagnosed with a mental health disorder other than SUD

^bOther illicit drugs includes heroin, prescription opioids, cocaine, methamphetamine, and sedatives

^cIncidence Rate Ratio reported

when they were not expecting to be doubled from 6 to 12% ($P=0.060$). Likewise, during the pandemic individuals had a rate 0.886 times smaller in their confidence to stay sober ($P=0.007$), and a rate 0.727 times smaller in recovery support meeting attendance ($P=0.001$).

During the pandemic, the proportion of participants missing their HIV medications 2 or more days per week significantly increased, from 5 to 12%, compared to before the pandemic ($P=0.042$). Similarly, there was a statistically significant decrease in individual's confidence to keep their next HIV appointment (IRR: 0.918, $P=0.021$).

Pre-pandemic, there was no increasing trend visible in the proportion of people using illicit substances, around other people using drugs, or missing HIV medications on 2 or more days (Fig. 1a). Likewise, there was no pre-pandemic decreasing trend visible in the mean confidence ratings for staying sober or keeping their next HIV appointment, nor for recovery support meeting attendance (Fig. 1b).

Discussion

By examining weekly survey data collected through an ongoing mobile-health intervention study, we found that PLWH and SUD in Wisconsin have increased their use of illicit substances during the COVID-19 pandemic. Individuals have also significantly decreased their confidence to stay sober and their recovery support meeting attendance, and they are unexpectedly around people using drugs more often. The significant worsening of these risk factors provides a strong concern that illicit substance use may further increase, and the use of alcohol and marijuana may begin to increase, throughout the course of the ongoing pandemic.

This study also found a significant increase in the proportion of people missing their ART medications 2 or more days per week. Poor ART adherence is the strongest predictor of failed virologic suppression, HIV drug resistance, disease progression, and even death among PLWH [22–24]. Missing 2 days of HIV medication, or adhering to only 71% of doses weekly, is well below the minimum level of adherence necessary to maintain viral suppression, which is often cited as between 80–95% [19, 20]. Furthermore, we found a significant decrease in individual's confidence to attend their next HIV appointment. Due to COVID-19, some providers have pushed back non-urgent medical appointments and/or provided virtual appointment options. We were unable to determine whether individual's confidence to attend a telehealth appointment may differ. However, previous research demonstrates that missing HIV appointments also predicts viral rebound, drug resistance, and mortality [25–27]. Together, these findings signal that novel methods to retain PLWH and SUD in HIV care during pandemics like COVID-19 must be implemented in order to improve the health of this marginalized population and prevent the spread of HIV.

The lack of any trends in these outcomes before the COVID-19 pandemic provides evidence that the worsening outcomes detected in this study are likely a result of the pandemic and not any pre-existing trends. However, our study had a small sample size, with the number of surveys taken per week ranging from 22 to 35. Another limitation of this study is that we cannot assess the effect of the COVID-19 pandemic on drug use behaviors and HIV care among PLWH and SUD who do not have access to A-CHESS. Considering the goals of A-CHESS are to prevent substance misuse and lapses in HIV care, it is likely that this study underestimates the effect the pandemic has

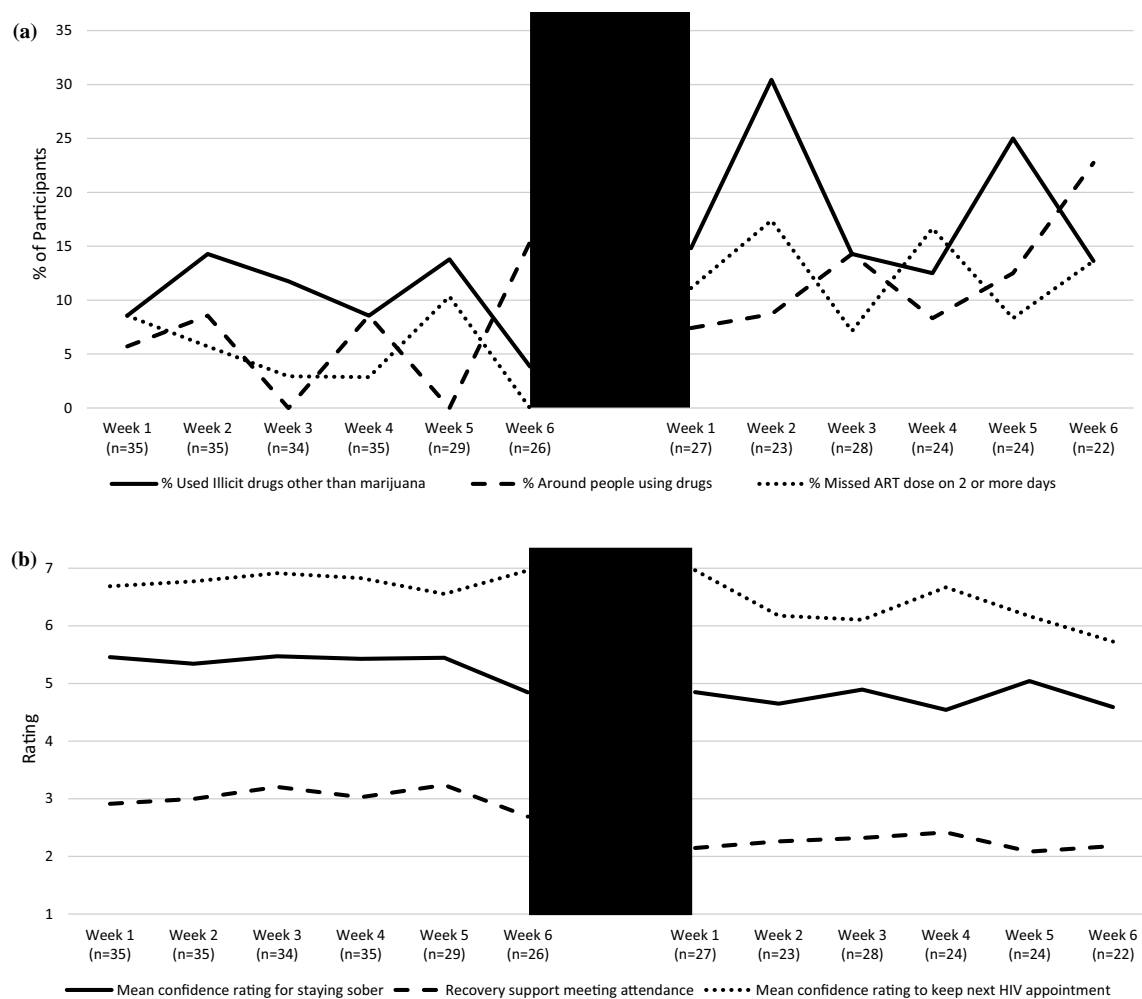


Fig. 1 Line graphs of trends in **a** the proportion of people using illicit drugs, around other people using drugs, and missing HIV ART medication on 2 or more days, and **b** mean rating for confidence to stay sober, recovery support meeting attendance, and confidence to attend

next HIV appointment 6 weeks before the pandemic (January 31 to March 12, 2020) and 6 weeks during the pandemic (March 24 to May 4, 2020)

on substance use and HIV care. More research is needed to understand how the pandemic has impacted drug use and HIV care among PWLH and SUD, as well as the general population, who do not have access to support tools like A-CHESS.

Further research is needed to understand mediating factors in the relationship between this social, emotional, and economical public health crisis and substance use and HIV care. We found a decrease in recovery support meeting attendance during the COVID-19 pandemic. Although social-distancing orders prevented many recovery meetings from being held in person, most programs were offering virtual meetings. We were unable to assess whether meeting attendance decreased because individuals were not offered virtual meeting options, they refused virtual options due to personal preference and recovery needs, or they lacked

access to the necessary technology. Additionally, subjects reported unexpectedly being around people using drugs more often. We were unable to describe factors mediating this relationship using data. We do know, however, that self-quarantine and social-distancing measures have disrupted access to recovery meetings, employment, and other activities that take people outside their homes. Furthermore, people who use drugs are often housed with other drug-using individuals, either family/friends in their social networks or in sober living homes with others vulnerable to relapse. Therefore, contact with these individuals is likely increasing as the pandemic restricts people to their own living environments.

Optimal support for PLWH and SUD is critical during this pandemic, as drug-related and ART non-adherence risks such as overdose, unsafe sexual behaviors, and HIV

transmission, may unfold. Exacerbating this crisis is that many harm reduction programs, such as syringe service programs, are operating at reduced hours or closed altogether. As face-to-face visits with medical and public health providers become less available, mobile-health interventions may provide a useful tool to remain connected, collect data, and deliver care to PLWH and SUD during pandemics like COVID-19. More research is needed to understand the long-term effects of COVID-19 on this population and to develop effective interventions that mitigate these effects and retain this population in care during pandemics.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

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Original Research Article

Racial Disparities in Substance Use Treatment Completion Among Older Adults

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Abstract

Background and Objectives: Racial disparities in substance use among young adults have been well documented in the substance use literature, but little attention has been paid to older adults. While being an older adult is positively associated with substance use treatment completion, racial disparities in treatment completion have yet to be examined. The purpose of this study was to determine to what extent racial disparities exist in substance use treatment completion among older adults (65 and older).

Research Design and Methods: This cross-sectional study utilized data from the most recent Treatment Episode Data from the Substance Abuse and Mental Health Services Administration, which documents discharges from a publicly funded substance use treatment program in the United States. A total of 17,942 older adults reported to a substance use treatment program in 2017 and 6,653 met the criteria for the study. Chi-squared tests were used to analyze group differences and a binary logistic regression was used to predict substance use treatment completion.

Results: Results show that Black older adults were 37% less likely to complete a substance use treatment program than Whites (OR = 0.630) while Hispanic older adults were 26% more likely to complete a substance use treatment program than Whites (OR = 1.26).

Discussion and Implications: These results support the findings from similar studies with younger adults and support the theory that racial disparities are prevalent across the life span. Although Hispanics had a higher treatment completion rate than Whites, this is likely a reflection of *familismo*, where decisions about health treatments is a group process and a steady network of family members are available to provide advice and encouragement. The significant disparity observed between Black and White older adults suggest a need to consider cultural, historical, and systemic factors that affect voluntary termination of substance use treatment among Black older adults.

Translational Significance: The results of this study indicate a significant disparity in substance use treatment completion between White and Black older adults, which has also been observed among younger adults. In practice, this suggests a need to conduct psychosocial assessments at treatment entry to determine barriers to completion specific to older adults who are minorities and attempt to address those barriers in conjunction with substance use treatment to ensure completion.

Keywords: Alcohol use disorder, Black, Hispanic, Treatment adherence

Substance use is a burgeoning public health issue among older adults. Due to the variation in symptomology among this population compared to younger adults, substance use disorders among older adults have been termed an invisible epidemic (Alpert, 2014). In spite of the fact that substance use research has primarily targeted young adults, older adults are an overlooked group that are at great risk of substance use dependency due to the multitude of afflictions that come with aging (Briggs et al., 2011). While substance use has been found to decrease with age (Mattson et al., 2017), factors such as pain associated with chronic illnesses, social isolation, depression, and other psychosocial issues that older adults face create a need for coping mechanisms that often involve drugs and alcohol (Heron, 2019; Reid et al., 2015). With the aging baby boomer cohort's increasing exposure to and usage of drugs (Mattson et al., 2017), the number of older adults in need of substance use treatment is on the rise.

Between 2002 and 2012, the proportion of older adults admitted to a substance use treatment program increased from 3.4% to 7.0% (Chhatre et al., 2017). In addition to the increase in proportion, the usage of illicit substances such as cocaine and heroin also increased during that time period, though alcohol remained the primary substance of use among older adults (Chhatre et al., 2017). Gfroerer and colleagues (2003) predicted that the number of older adults who will need substance use treatment will see an upsurge from 1.7 million in 2001 to 4.4 million in 2020. While these projections of substance use among older adults are evident, studies assessing racial differences in the prevalence of substance use and treatment completion among older adults is limited.

In the general population, significant racial disparities in substance use prevalence and treatment completion have been noted. Minorities have been found to have higher cases of substance use and are also less likely to complete a substance use treatment program (Mennis & Stahler, 2016). Among adolescents, Black and Hispanic teenagers reported having less specialty and informal care for their substance use disorder than their White peers (Alegria et al., 2011) and in studies comparing the likelihood of completing an alcohol treatment program, African Americans and Hispanics were found to be significantly less likely to complete than Whites (Bluthenthal et al., 2007).

These disparities are also marked by systemic levels of racial injustice that moderate the prevalence of substance use disorders among minorities and the lower treatment completion rates. Minorities represent a staggering percentage of the homeless population in the United States and are influenced by racist redlining policies that contribute to housing inequity to date (Rutan & Glass, 2018). Minorities have also been found to have higher rates of chronic illnesses, lower educational attainment, and have almost twice the proportion of households below the poverty line compared to Whites (Cunningham et al., 2017; Price et al., 2013). These systemic issues of social justice undoubtedly influence the outcomes of addiction treatment

as higher socioeconomic status is a protective factor for treatment completion. For example, one study found that African Americans had a 17.5% substance use treatment completion rate while Whites had a 26.7% completion rate, and this disparity was attributed to differences in socioeconomic factors such as homelessness, employment, and health insurance (Jacobson et al., 2007). Black/African American adults have also reported delays in substance use treatment entry as compared to Whites in a study assessing racial and socioeconomic disparities in substance use treatment (Lewis et al., 2018).

Other systemic disparities also exist in terms of health insurance and geographic access to a substance use treatment facility. A study by Cummings and colleagues found that only 60% of U.S. counties have an outpatient substance abuse treatment facility that accepts Medicaid and counties with a higher percentage of black, rural, and underinsured residents are less likely to have a substance use treatment facility (Cummings et al., 2014). These geographic inequities particularly alienate minorities who are more likely to use Medicaid (Kaiser Family Foundation, 2019).

Although these disparities have been noted among younger adults, studies addressing differences among older adults are scarce. While there are few studies targeting older adults specifically, Vasilenko and colleagues (2017) have found higher prevalence of alcohol use disorder and tobacco use disorder among Black older adults compared to Whites and Hispanics, while Gurnack and Johnson (2002) found higher usage of illicit drugs among African American older adults. Chhatre and colleagues have also found that between 2002 and 2012, the percentage of African American older adults admitted to substance use treatment programs increased from 21% to 28% while the proportion of non-Hispanic Whites decreased by 3% (2017). While these studies have found notable differences in the prevalence of substance use among older adults, there are no studies that examine racial disparities substance use treatment completion rates among older adults. The increasing trend in older adults seeking substance use treatment and the racial disparities found in younger adults posits a need to evaluate the extent of these differences across the life span. The purpose of this study is to address this gap in literature and examine racial differences in substance use treatment completion among older adults by comparing treatment completers with those who voluntarily terminate treatment. For the purpose of this study, treatment completion refers to the successful conclusion of a treatment plan as determined by the substance use treatment facility (SAMHSA, 2019b).

Conceptual Framework

A number of factors have been proposed to explain the racial disparities in substance use treatment utilization and completion. These include socioeconomic status, criminal history, co-occurring mental health conditions, geographic availability of substance use treatment programs,

and so forth (Choi et al., 2014; Cummings et al., 2014; Maremmanni et al., 2017). To conceptualize the existence of other explanatory variables within this study, Andersen's Healthcare Utilization Model provides a comprehensive guide that includes the factors that have been proposed in previous studies. The Andersen model was developed in the late 1960s by Ronald M. Andersen and has been widely used to address health disparities among underserved populations (Bonomi et al., 2009; Lee et al., 2017). The Andersen model suggests that a person's use of health services is attributed to their predisposition to use services, enabling or impeding factors and the need for the health care service (Andersen, 1995). Predisposing factors include demographic measures such as age and gender, enabling or impeding factors include social capital such as family and community, and need factors include individual perception of health or official medical diagnosis (Andersen, 1995).

Objectives and Research Question

Although substance use among older adults is still understudied, a number of studies have found disproportionately higher rates of substance use prevalence among minorities. While most studies have focused on identifying the rates of use, no studies have been identified that address the utilization and completion of substance use treatment programs among this population. Furthermore, racial differences in completion rates have been neglected, and research with younger adults suggests that there may be significant differences in the completion rates between racial groups. In this context, the purpose of this study is to fill the gap in literature by answering the following research question: To what extent do racial disparities exist in substance use treatment completion among older adults? In line with the research question, this study aims to determine if previously identified racial disparities in substance use treatment completion are consistent through older adulthood. We hypothesize that there will be a difference in the treatment completion rates between minorities and Whites.

Method

Data Source

Data on discharges from publicly funded substance use treatment programs were derived from the most recently available Treatment Episode Data Set—Discharges (TEDS-D) from the Substance Abuse and Mental Health Services Administration (SAMHSA), a national collection of annual discharges from substance use treatment programs in 2017. Data include demographic and substance use characteristics of individuals age 12 and older in substance use treatment facilities that report to state administrative data systems (SAMHSA, 2019b). TEDS-D only includes admissions to facilities that are licensed or

certified by state agencies to provide substance use treatment services. Facilities reporting to TEDS-D are mostly those funded by state or drug agency funds, so the TEDS-D does not represent all substance use treatment facilities in the United States but is considered a nationally representative sample (SAMHSA, 2019b). The types of treatment programs in the data set include certified opioid treatment programs, community-based correctional programs, hospitals/Veterans Affairs hospitals/state hospitals, state-licensed/certified solo practitioners, state/correctional DUI/DWI providers, state divisional service centers, and private facilities (SAMHSA, 2019a).

Because this study is focused on racial disparities among older adults, only discharges of individuals aged 65 and older were included ($N = 6,653$). Older adult age range has been defined in a number of ways across the gerontology literature, but 65 and older was chosen as defined by the American Psychological Association (American Psychological Association, n.d.).

Procedures

Each individual state is responsible for the aggregation of discharge data in any given year. Combined data from all agencies are then converted to meet TEDS standards by modifying the state data crosswalk. Once data are validated, all state reports are combined in the national TEDS database and available for data analysis (SAMHSA, 2019a).

Variables

All variables used for the study were coded as one (1) to represent the presence of a characteristic and zero (0) to represent the absence of the characteristic. The code zero (0) represents the reference category and any number above zero are comparison categories.

Dependent variable

The main outcome variable of substance use treatment completion was coded as 1 for treatment completed and 0 for treatment voluntarily terminated. Other reasons for discharge included "terminated by facility," "transferred to another facility," "incarcerated," "death," and "other" but were excluded because these other options do not reflect a necessarily voluntary termination of substance use treatment by the individual. The purpose of this study is to determine racial differences in individuals who are completing the program or voluntarily terminating so these other options were not included as they could skew the causal mechanism of treatment completion as noted in a similar study by Mennis and Stahler (2016). It is important to note that "voluntary" termination of treatment may also reflect a number of external factors such as a need to return to employment, a family emergency, or financial/insurance reasons.

Independent variables

Guided by the Andersen model of health care utilization, explanatory variables to represent predisposing factors, enabling or impeding factors, and need factors were chosen. The main independent variable of race was coded to represent mutually exclusive and exhaustive categories. Non-Hispanic Black/African Americans were coded as Black, non-Hispanic Whites were coded as White, and all older adults who identified as Hispanic were coded as Hispanic, regardless of race or ethnicity. Blacks/African Americans were chosen because they have been identified as having the greatest disparity compared to Whites in other studies with younger adults, and Hispanics were included even though other studies did not find practically significant differences in treatment completion compared to Whites (Acevedo et al., 2015; Archibald, 2007; Mennis & Stahler, 2016; Saloner & Cook, 2013). The three included races represent the top three racial groups in the United States (Kaiser Family Foundation, 2020). Other races were not included because they represented a very small percent of substance use treatment admissions for older adults in 2017. Hereafter, non-Hispanic Blacks will be referred to as Black/African American and non-Hispanic Whites will be referred to as Whites. All Hispanics regardless of race or ethnicity will be referred to as Hispanics.

Because participants were only described as 65 and older, age could not be used as a part of the analysis as a predisposing factor so gender was selected as a predisposing factor along with race and because females have been found to have better treatment outcomes than males (Marsh et al., 2004). Gender was coded as 1 = male and 0 = female. Marital status, education, and employment were chosen as enabling factors because being married, having higher educational level, and having employment have been identified as protective factors for substance use (Heinz et al., 2009; Mutter et al., 2015). Marital status was coded as 0 = married, 1 = not married, and 2 = separated/divorced/widowed. Education was coded as 0 = has postsecondary education, 1 = completed high school, and 2 = did not complete high school. Employment was coded as 0 = employed, 1 = unemployed, and 2 = not in labor force. Participants that reported either having full-time or part-time employment were considered employed. Those who reported "not in labor force" were either retired, a student, disabled, a homemaker, or a resident of an institution such as hospitals, jails or prisons (SAMHSA, 2019b). These reasons for "not in labor force" were not examined as variables in the analysis.

The need factors chosen were the type of primary substance used and frequency of use, both of which could influence perceived need for substance use treatment. Those with alcohol as their primary substance have been found to have higher treatment completion rates compared to illicit drug users and frequency of use affects substance use treatment outcomes (Mennis & Stahler, 2016; Proctor & Herschman, 2014). Primary substance was coded as 1 = alcohol and 0 = other. Frequency of use was coded as 0 = some use or no use in the last month and 1 = daily use.

Analytic Plan

Chi-squared tests were used to analyze differences in substance use treatment completion across all independent variables. To predict the likelihood of substance use treatment completion, a binary logistic regression was performed, while controlling for the predisposing, enabling, and need factors identified through the Andersen model. To assess multicollinearity among the variables, a test of tolerance and variance inflation factor (VIF) was performed. All tolerance values were less than 1 and all VIF values were less than 10, so the assumptions for a logistic regression were met. For all levels of analysis, alpha level was set at .05.

Results

Univariate Results

Descriptive statistics displaying the sample size, percent within sample, and treatment completion percent for each variable are provided in Table 1. A total of 17,942 older adults reported to a substance use treatment program in 2017 and 6,653 reported on all the variables for the study. Of the 6,653, 73.7% completed substance use treatment and 26.3% voluntarily terminated. The majority of the sample were White (65.1%) and male (76.5%). Most of the older adults were divorced, separated, or widowed (44.2%), were not in the labor force (69.7%), and had postsecondary education (41.2%). The most prevalent primary substance of use was alcohol (73.2%) and most of the sample reported using their primary substance only sometimes or not at all in the past month (57.6%).

Bivariate Results

For treatment completion, significant differences were found across all the groups except marital status and employment. Whites were more likely to complete treatment (76.7%) than Black/African Americans (62.6%). Hispanics had a higher treatment completion rate than Whites and Black/African Americans (80.2%). Males were more likely to complete treatment (74.8%) than females (70.2%).

Married older adults had a higher treatment completion rate (75.2%) than never married (72.8%) and separated/divorced/widowed older adults (73.2%), but this difference was not statistically significant. Older adults who were employed had higher treatment completion (78.6%) than those who were not employed (76.1%) and those who were not in the labor force (69.7%). Older adults who completed at least high school had a higher completion rate (74.9%) than those who had postsecondary education (73.2%) and those that did not complete high school (72.5%), but these differences were not statistically significant.

Those with alcohol as their primary substance had significantly higher completion rates (79.3%) than those who used other substances (58.4%) and finally, those who used their primary substance only sometimes or not at all in the past month had higher completion rates (76.4%) than

Table 1. Univariate and Bivariate Results

Variable	Values	Sample size (N)	% Within sample	% With treatment complete	Pearson χ^2	Significance ($p < .05$)
Treatment completion	Treatment completed	4,903	73.7	N/A	N/A	N/A
	Voluntarily terminated	1,750	26.3	N/A	N/A	N/A
Race	Non-Hispanic white	4,330	65.1	76.7	137.688	.000
	Non-Hispanic black	1,599	24.0	62.6		
	Hispanic	724	10.9	80.2		
Gender	Male	5,092	76.5	74.8	12.776	.000
	Female	1,561	23.5	70.2		
Marital status	Married	1,975	29.7	75.2	3.346	.188
	Never married	1,738	26.1	72.8		
	Separated/divorced/widowed	2,940	44.2	73.2		
Employment	Employed	807	12.1	78.6	18.729	.000
	Unemployed	1,206	18.1	76.1		
	Not in labor force	4,640	69.7	72.2		
Education	Has postsecondary education	2,740	41.2	73.2	3.311	.191
	Completed high school	2,565	38.6	74.9		
	Did not complete high school	1,348	20.3	72.5		
Primary substance	Alcohol	4,872	73.2	79.3	293.766	.000
	Other	1,781	26.8	58.4		
Frequency of use	Daily use	2,820	42.4	70.1	33.183	.000
	Some use or no use in the last month	3,833	57.6	76.4		

Note: N/A = not applicable.

Table 2. Multivariate Results

Variable	Odds ratio	Confidence intervals	Significance $p < .05$
Black/African American compared to Whites	0.630	0.548–0.725	.003
Hispanics compared to Whites	1.263	1.024–1.557	.029
Males compared to females	1.288	1.129–1.471	.000
Never married compared to married	1.102	0.938–1.294	.239
Separated/divorced/widowed compared to married	0.998	0.871–1.143	.974
Unemployed compared to employed	1.013	0.809–1.269	.909
Not in labor force compared to employed	0.799	0.663–0.962	.018
Completed high school compared to postsecondary education	1.225	1.076–1.396	.002
Did not complete high school compared to postsecondary education	1.115	0.948–1.312	.188
Primary substance is alcohol compared to other	2.407	2.120–2.733	.000
Primary substance is used sometimes or not at all in the past month compared to daily use	1.224	1.092–1.372	.045

those who used their primary substance daily (70.1%). The biggest group differences in completion rates were found within primary substance, with a 20.9% difference in completion rates between alcohol users and other substance users. There was also a significant difference in completion rates within race with 17.6% difference between Hispanics and Black/African Americans and a 14.1% difference between Black/African Americans and Whites.

Multivariate Results

The result of the binary logistic regression is depicted in Table 2. Consistent with the bivariate results, when

predisposing, enabling, and need factors were controlled for, race was still a significant predictor of substance use treatment completion. Black/African American older adults were less likely to complete a substance use treatment than Whites (odds ratio [OR] = 0.630), supporting the study hypothesis. This means that White older adults are about 60% more likely to complete a substance use treatment program than Black older adults when the OR is inverted ($1/0.630 = 1.6$). Hispanics were 26% more likely to complete a substance use treatment program than Whites (OR = 1.263). Males were 29% more likely to complete treatment than females (OR = 1.288).

Marital status was not significant; there was no notable difference in the completion rates between those who were married and those who were either never married or separated/divorced/widowed. There was also no statistically significant difference between those who were employed and those who were unemployed, but there was a significant difference between those who were employed and those who were not in the labor force. Those who were not in the labor force were less likely to complete substance use treatment than those who were employed ($OR = 0.799$). This means that employed older adults are 25% more likely to complete substance use treatment than older adults who are not in the labor force ($1/0.799$). Older adults who completed only high school were more likely to complete treatment than older adults who had postsecondary education ($OR = 1.225$). There was no statistically significant difference in the treatment completion rates between older adults who never finished high school compared to older adults who had postsecondary education.

Older adults with alcohol as their primary substance were over twice as likely to complete a substance use treatment program than those with other substances ($OR = 2.407$) and older adults who used their primary substance sometimes or not at all in the past month were 22% more likely to complete treatment than those who used it daily ($OR = 1.224$).

Discussion

Substance use as an issue among older adults is slowly gaining momentum in the substance use literature. With studies showing significant racial disparities in substance use treatment completion rates in the general population (Chhatre & Jayadevappa, 2018; Gurnack & Johnson, 2002; Mennis & Stahler, 2016; Vasilenko et al., 2017), the increasing trend of older adults reporting to a substance use treatment program warranted an assessment of these disparities across the life span (Chhatre et al., 2017; Gfroerer et al., 2003; Mattson et al., 2017).

For substance use treatment completion rates between Hispanics and Whites, the results of this study show that Hispanic older adults have a higher completion rate both in the bivariate and multivariate analyses compared to White older adults. Previous studies have found varying treatment completion rates for Hispanics compared to Whites, with some studies identifying minor differences (Niv et al., 2009; Perron et al., 2009) and others finding great disparities (Saloner et al., 2014; Stahler & Mennis, 2018). For example, Mennis and Stahler observed that Hispanics had a lower treatment completion rate than Whites, but it was only an 8% difference and was not found to be statistically significant (Mennis & Stahler, 2016). Furthermore, the same study found that the substance of use moderated treatment completion rates, with Hispanics having a higher completion rate than Whites for alcohol but a much lower completion rate for heroin (Mennis & Stahler, 2016).

Considering that the majority of the sample used alcohol as their primary substance, the higher completion rates among Hispanics compared to Whites might be a reflection of the moderating effect from type of substance used.

Another possible factor that was not accounted for in the study is the role of social support and the family bond. While marital status was accounted for, the influence of a social network in terms of nonspousal support was not considered. Hispanics have been found to have a cultural preference for family closeness and extended family living arrangements, which results a greater number of people within their social network (Campos et al., 2014). Loyalty to the extended family is extremely important through a concept known as *familismo*, where decisions about health treatments is a group process and a steady network of family members are available to provide advice and encouragement (Calzada et al., 2013). While being married is often viewed as protective factor, children and extended family members may also be a great source of support. With the unique cultural trait of *familismo*, Hispanics may have a higher treatment completion rate because of a greater support system.

In terms of substance use treatment completion rates between Blacks and Whites, Blacks were found to be 34% less likely to complete treatment than Whites. This means that for every 10 White older adults that complete substance use treatment, only six Black older adults complete treatment. These results show a great disparity in substance use treatment completion that have been observed in other similar studies assessing the general population, with Black/African American older adults having a significantly lower treatment completion rates than Whites (Arndt et al., 2011; Jacobson et al., 2007; Mennis & Stahler, 2016).

While the treatment completion rates between Hispanics and Whites is inconsistent across multiple studies, there is a strong consensus when it comes to the disparity between Blacks and Whites, which is often attributed to differences in socioeconomic status (Saloner & Cook, 2013). However, this study shows that even when predisposing, enabling, and need factors are accounted for, there are significant differences in substance use treatment completion between Black and White older adults. This suggests the need to look at race theories to better explain underlying causes of this prevalent disparity.

One possible approach is to use the critical race theory framework to examine the historical, cultural, and systemic context of the health care experiences of Black/African Americans (Ortiz & Jani, 2010; Pulliam, 2017). From the critical race theory perspective, Black/African American older adults may have less substance use treatment completion for several reasons. Dovidio and colleagues (2008), for example, have found that experiences of racial bias and aversive racism have resulted in a distrust of the health care system among Black older adults. On a systemic level, this can be seen in terms of the geographic placement of health care facilities, the cost of services, the availability of

insurance coverage, and the quality of the service relative to its location (Dovidio et al., 2008).

Another barrier for Black/African older adults might be stigma, both internalized and public. Negative public view towards mental health prevents older adults from seeking treatment, despite having the intention to do so (Conner et al., 2010a) and African American older adults may feel the need to adhere to culturally acceptable coping strategies, of which seeking external intervention from a professional is not often positively viewed (Conner et al., 2010b). African American older adults from traditional backgrounds may also feel a responsibility to be an “exemplary elder” and have feelings of shame associated with any deviation from that expectation (Lichtenstein, 2008) as in the case of substance use disorders.

In practice, this calls for a culturally sensitive approach to treatment retention for Black/African American older adults in substance use treatment programs, and on a grand political scheme, it calls for a total overhaul of systems that have negatively influenced Black/African American perception of the health care system. On a public level, the need to destigmatize substance use in general is critical, and the expectations of older adults to be model citizens without fault must be diminished. Older adults, like many younger adults, have risk factors that make them susceptible to substance use dependency including chronic pain, social isolation, depression, suicidal ideation, and despair (Arndt et al., 2011; Assari et al., 2019; Cleary et al., 2017; Thandi & Browne, 2019; Millar et al., 2017), and Black/African American adults in particular have “double jeopardy” as a result of their membership in two vulnerable groups (Ferraro, 1987).

Limitations

Although this study utilized the most comprehensive and recent account of substance use program outcomes available from the SAMHSA, only state-funded treatment program outcomes are reported (SAMHSA, 2019b), which may exclude older adults in private treatment programs, private correctional facilities, and programs like Alcoholics Anonymous. This study only evaluated older adults aged 65 and older, which excludes a significant amount of people in older adulthood, and the inclusion of adults aged 50–65, for example, might yield different results. Similarly, only 37% of the total sample was included in the final sample of the study, which may result in attrition bias. Those who were not included in the study, for example, may have unique characteristics relevant to the study that may have yielded different results. The nature of “voluntary” treatment completion is also ambiguous as older adults may voluntarily terminate treatment for reasons such as the death of a loved one, health reasons, family emergencies, and other factors that do not delineate a willingness to quit substance use treatment. Furthermore, the study did not employ a full range of possible predictors that have in the past been

found to be relevant when examining racial disparities in substance use treatment, such as the role of social network, type of treatment program, insurance/payment methods, referral source, and geographic residence.

Conclusion

Substance use among older adults has been largely overlooked due to the inconspicuous nature of this vulnerable population. Several factors associated with aging put older adults at risk of substance use dependency, and this risk is increased for Black/African American older adults who are members of two vulnerable groups. This study contributed to the substance use literature by showing the prevalence of racial disparities in substance use treatment completion across the life span, with results that support previous studies involving younger adults. Despite the consideration of predisposing, enabling, and need factors that are typically proposed as causes of racial disparities in health care utilization, the disparity between Black and White older adults remained. This calls for a consideration of cultural factors in practice, an overhaul of systems that create distrust of the health care system in Black/African Americans, and a need to destigmatize substance use disorders, especially for older adults who are facing an invisible epidemic.

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Conflict of Interest

None declared.

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Cancer

HIV is an independent risk factor for smoking-related cancers, especially in women

Michael Carter | 17 November 2020



Image: fotografierende/Pexels

New research provides compelling evidence that infection with HIV is an independent risk factor for developing smoking-related cancers. Published in *AIDS*, the study's findings are especially important because they compared cancer-risk between closely matched individuals with and without HIV who were enrolled in long-standing cohort studies. Women with HIV appeared to have an especially high risk of developing a smoking-related cancer.

“There is a substantial burden of smoking-related cancers among people living with HIV and unless the high prevalence of smoking is reduced, this will likely increase over time due to the longevity among people living with HIV on ART,” comment the authors. “In addition to smoking related cancers, preventing the initiation of smoking and smoking cessation lessens the burden for all smoking-related diseases. For people living with HIV this is especially important given the elevated risk for several other diseases that can be exacerbated by smoking, including cardiovascular disease, pulmonary infections, chronic obstructive pulmonary disease and pneumonia.”

The research was undertaken by a team of investigators led by Professor Nancy Hessel of the University of California, San Francisco.

Cancer is an increasingly important cause of death among people living with HIV. It's been estimated that in the US, people with HIV are about twice as likely to smoke compared to individuals in the general population and elevated rates of many smoking-related cancers have been observed among people with HIV. But Dr Hessel and her co-researchers were concerned that previous studies may not give an accurate picture as people with HIV were not being compared with individuals with very closely matched risk profiles.

They realised a way of overcoming this limitation was to look at cancer incidence among people with and without HIV recruited to the Women's Interagency HIV Study (WIHS) and the Multicenter AIDS Cohort Study (MACS). HIV-positive and HIV-negative participants in these long-running studies have very similar demographic and lifestyle profiles, including risk factors for smoking-related cancers. As well as smoking, these risk factors include alcohol consumption, illicit drug use, body mass index and co-infection with human *papillomavirus* or hepatitis C virus.

The investigators set themselves three aims: to see if incidence of smoking-related cancer differed according to HIV status; to determine if cancer rates differed by sex; and to see what proportion of cancers could be directly attributed to smoking.

[Find out more in our About HIV pages](#)

Smoking-related cancers were defined as cancers of the lung, bronchus, larynx, liver, colon, rectum, small intestine, kidneys, oral cavity, nose and middle ear, cervix, vagina, vulva, penis, anus, pancreas, oesophagus, bladder and stomach, as well as acute myeloid leukemia.

The final study population included 4423 women enrolled in WIHS between 1994 and 2018 and 6789 men who have sex men who were recruited to MACS between 1984 and 2018.

Approximately three-quarters of WIHS participants and 44% of those enrolled in MACS were HIV positive. Smoking was highly prevalent, documented for 65% of WIHS and 60% of MACS participants.

A total of 406 smoking-related cancers were diagnosed, including cancers of the lung/bronchus (117), colon/rectum (52), anal (52) and liver (39).

Incident rates were higher in women than in men, and higher in those living with HIV:

- HIV-negative men: 138 per 100,000 person years.
- HIV-positive men: 279 per 100,000 person years.
- HIV-negative women: 276 per 100,000 person years.
- HIV-positive women: 434 per 100,000 person years.

Incidence rates remained significantly higher among people with HIV even after the investigators took into account other established risk factors for smoking-related cancers, including duration and intensity of smoking ($p < 0.01$). Moreover, incidence was still higher among people with HIV when analysis was restricted to the period of modern antiretroviral therapy (50% increase in risk, IRR = 1.5; 95% CI, 1.0-2.2). Cancer risk among people with HIV was associated with a CD4 cell count below 200 or a viral load above 500.

"This is one of the largest cohort studies to examine the contribution of smoking to cancer burden among people living with HIV relative to highly similar people without HIV."

Approximately a third (31%) of smoking-related cancers observed in people with HIV were directly attributed to smoking. The proportion was higher for women than men (39% vs 28%, $p = 0.05$).

"This is one of the largest cohort studies to examine the contribution of smoking to cancer burden among people living with HIV relative to highly similar people without HIV," write Dr Hessol and colleagues. "Among those with a history of smoking, the observed incidence of smoking-related cancers was significantly higher among people living with HIV."

The investigators were unclear about the causes of the higher cancer incidence seen in women. Female participants tended to have smoked less than male participants, but prior studies have shown women to be more susceptible to lung cancer than men.

"These data lend strong support for integrating smoking cessation interventions into ongoing HIV programs and educating people living with HIV, especially women, about the harm of smoking and the benefits of quitting," recommend the authors.

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Very few people with HIV stop smoking after brief advice from clinicians

Roger Pebody

February 2020

Two recent reports highlight the low rates of smoking cessation achieved using recommended brief interventions during routine appointments at HIV clinics.

[Smoking is responsible for the loss of more life-years](#) in people with HIV than HIV itself. People living with HIV are more likely to smoke than the general population and may be at greater risk of smoking-related illnesses, including heart disease, lung disease and some cancers. Effective smoking cessation interventions are therefore a priority, but it is unclear whether those developed for the general population have sufficient impact.

In Italy, smoking cessation experts trained HIV doctors at ten hospitals in Italy to deliver the 5A's intervention, which involves clinicians asking about smoking, advising smokers of the benefit of stopping, assessing motivation to quit (using the stages of change model), assisting smokers in their quit attempt and arranging follow-up with stop smoking services. They were encouraged to offer this support at multiple clinic visits and outcomes were assessed after two years.

Of 1087 patients seen, 561 were smokers. Two years later, 41 of the 561 (7.3%) had successfully quit smoking for at least six months.

Quit rates were higher amongst patients who were assessed as being more ready for behaviour change (in the 'preparation' or 'contemplation' stages) than others. They were also higher (10.8%) in people attending the four clinics which said they *did* repeat discussions about smoking at multiple appointments. The intervention was only partially implemented by the other six clinics, because of time constraints and a perceived lack of interest from patients.

Of note, only 22 patients were given nicotine replacement therapy, medications such as varenicline (*Champix*) or e-cigarettes. This means the results mostly reflect the impact of counselling on its own, without pharmacological support. Also, three clinics were unable to refer patients to a specialist stop smoking service. Four could refer to a service in their hospital and three to a service in the same city, but none had this available within their own clinic.

In London, smoking cessation experts trained three healthcare assistants (nursing assistants) at the HIV clinic of the Royal Free Hospital to provide brief advice, as

recommended by UK guidelines. The approach is broadly similar to the 5As, but with a greater emphasis on referral to a stop smoking service in the patient's local area. As well as information and advice, these services can prescribe nicotine replacement therapy and other medications.

"4% of all identified smokers quit."

Of 1548 patients who were asked about smoking, 385 were smokers. Almost all were offered a referral to a stop smoking service, but only 154 accepted the referral. Follow-up with the stop smoking services three months later showed that 36 patients did attend the service, 78 did not and attendance was unknown for 40 patients. Of the 36 who did attend, 16 were recorded as having quit smoking (the duration of the quit was not reported). This means that 4% of all identified smokers quit.

Nonetheless, an economic analysis was more encouraging. Costs were modest due to the low pay grade of the staff involved and the brevity of the intervention. The estimated costs were £5.22 (GBP) for each smoker identified and £55.77 for each individual who attended stop smoking services.

The authors suggest that having a stop smoking service within the HIV clinic might remove a barrier. "If the risk of smoking-related morbidity among people living with HIV is to be reduced, more sustainable referral pathways and ways of improving uptake of smoking cessation services must be developed," they say.

HRSA's Ryan White HIV/AIDS Program

The Intersection of HRSA's Ryan White HIV/AIDS Program and the Opioid Epidemic

A recent study has shown that the overall number of deaths in people with HIV in the United States is declining (12.7% decline from 2011 to 2015), yet the number of opioid overdose deaths in people with HIV is on the rise (47% increase from 2011 to 2015).¹ The Health Resources and Services Administration's (HRSA) Ryan White HIV/AIDS Program (RWHAP) recipients have spent decades building systems of care to meet the needs of people with HIV, including providing services to address individuals' medical and social needs. In consideration of the opioid crisis, RWHAP recipients are facing the need to redouble their efforts to provide services to the most vulnerable populations, meeting clients where they are and working to improve individual-level and overall public health.

To better understand the current impact of the opioid epidemic on the RWHAP, HRSA HIV/AIDS Bureau (HAB) hosted a Technical Expert Panel (TEP) on the "RWHAP Response to the Opioid Epidemic" in summer 2018. The TEP convened RWHAP recipients and other experts to discuss the intersection of the RWHAP and the opioid epidemic and how services for people with HIV who have substance use disorder could be bolstered to improve health outcomes. This technical assistance document provides examples from the TEP and follow-up phone interviews with TEP participants of activities RWHAP recipients are currently implementing for people with HIV who have substance use disorders; it also highlights how HRSA RWHAP providers can provide services to address clients' behavioral health needs, including those related to substance use.

"Like in the early years of HIV/AIDS, when homophobia led to responses of blame and fear, addiction is seen as a social problem rather than a defined disease. At the crux of another public health crisis, we need to take responsibility as a community, as providers, as human beings, for those who are living with addiction ... This epidemic is a crisis that knows no geographic or economic boundaries. And the impact of it is felt across racial and ethnic minorities, and especially in disadvantaged populations. Like the HIV/AIDS epidemic, addiction touches just about every family in the U.S."

RADM Sylvia Trent-Adams, Ph.D., R.N. F.A.A.N., Principal Deputy Assistant Secretary for Health

CONSIDERATIONS FROM RWHAP PROVIDERS ON IMPLEMENTING SERVICES

RWHAP recipients are already engaging in work related to the intersection of HIV and the opioid epidemic, identifying the need in their jurisdiction and ways to implement work in what can be a challenging environment. The following overarching practices are important to consider when working to address the concomitant HIV and opioid epidemics in your jurisdiction.

- ▶ **Conduct training and provide technical assistance in all settings.** Consider a broad response to the opioid epidemic, with collaboration and program initiation from prevention, care, and treatment programs.
- ▶ **Explore opportunities to diversify funding.** Identify if funding is available from multiple sources (HIV prevention, RWHAP, Substance Abuse and Mental Health Services Administration [SAMHSA], etc.) to ensure that comprehensive services can be offered to clients. Within the evolving healthcare landscape, RWHAP funds can make it possible for "out-of-the-box thinking."
- ▶ **Use data to understand the needs of your client population.** Assess the data trends of clients accessing services at your site. Are there increases in the number of **new** clients who report injection drug use as a risk factor? Have the demographics of these clients changed or remained the same? What are the clinical outcomes of people with HIV who also have substance use needs? Understanding these questions can support program-planning activities.

"When I asked them to come to the table, I asked as a partner. 'Let's do this together' instead of 'I'm doing this.' We need to collaborate and pull from our collective strengths."

Shannon Stephenson, Chief Executive Officer, Cempa Community Care

¹ Bosh KA, Crepaz N, Dong X, et al. Opioid overdose deaths among persons with HIV infection, United States, 2011–2015. [Abstract number 147]. Abstract presented at the 2019 Conference on Retroviruses and Opportunistic Infections; March 7, 2019; Seattle, Washington.

- **Engage all providers.** Coordinate with local organizations to ensure that where a person initiates service does not define or limit the types of services they receive. Co-locate services when possible; for example, work to increase the co-location of medication-assisted treatment (MAT) and HIV treatment. Socioeconomic circumstances are at the core of linkage. Poverty, risk of HIV and other diseases, lack of jobs, and homelessness can be pervasive, ongoing, and unresolvable. Integrating services helps to treat the whole person.
- **Ensure warm hand-offs.** When possible, have a direct (i.e., in person) “hand-off” of a client from one service provider to another, helping to ensure the client successfully engages with the next provider.

“We need to better coordinate with local organizations to ensure that wherever patients land, we can ensure they get care.”

Pamposh Kaul, Clinical Director, Ohio Regional AIDS Education and Training Centers
- **Encourage mainstreaming behavioral health services.** Work to incorporate behavioral health assessment and treatment into all RWHAP services. When all RWHAP clients are engaged in behavioral health, the engagement is destigmatized, and mental health and substance use risk factors can be assessed in a more consistent manner.
- **Assess and address emergent issues.** Inventory service systems to identify existing or emerging needs and issues. Consider if providers could establish and support mobile services to intensify efforts.
- **Understand the opioid epidemic and engage the community in which you are working.** Understand the type(s) of opioid epidemic in your jurisdiction (i.e., injection drug use, prescription drug use). There are different approaches to addressing the opioid epidemic, depending on the type of overuse experienced in a jurisdiction. Mobilize the broader community in which you are doing work to unify the effort. Develop a community action plan with a broad range of partners (e.g., military, tribal groups, homeless shelters, faith centers, emergency departments, barber shops/salons, police and other first responders, health department, etc.).
- **Ensure a client-centered approach to services.** Stigma toward substance users remains, even among some RWHAP recipients and subrecipients. RWHAP recipients have an opportunity to serve as leaders in implementing programs that meet substance users “where they are” without judgment, maintaining client rights, and ensuring that access to MAT and other interventions is not contingent on abstinence. The RWHAP has demonstrated high acuity in achieving viral suppression among people with HIV in general; however, reengagement and retention remain at the forefront of challenges when working with complex clients. Focusing on meeting clients where they are and embracing the challenges of individual circumstances could help increase access to and retention in the RWHAP systems of care for people with HIV who have substance use disorder.

“Many clients seem to be ready to be engaged—we will always offer resources and allow clients to know when they want to engage.”

Tammy Miller, RWHAP Part C Clinic Manager

IMPLEMENTATION ACTIVITIES

RWHAP recipients have experienced successes in working with people with HIV who have substance use disorder. TEP participants are implementing the following strategies:

Community Engagement

- **Develop a community-level action plan.** The process of developing an action plan includes analysis of what exists within the community, what does not exist in the community, and where people are falling through service gaps. Implementation of the action plan helps to improve workflow.
- **Focus on relationships to gain trust.** Gather broad representation of community leadership and members to create a consortium to tackle the opioid problem in individual communities. This emboldens people to continue and further the work on their own.

- ▶ **Collaborate with health centers to establish an HIV, HCV, and substance use disease management portfolio.** Health centers have a wide range of services, eliminating the need for clients to be referred out to additional providers. Invest RWHAP funds in existing resources, like health centers, and work to bolster them. Coordinate with local providers and provide them with training and resources to assist them in furthering the services they are able to provide.
- ▶ Address and work to reduce **stigma**.

Development of Comprehensive and Integrated Services

- ▶ **Support syringe services programs (SSP).** RWHAP funds can be used to support SSPs, with the exception of needles/syringes and related equipment. The most effective SSP model is multi-tiered: for example, a full SSP that is open five days a week for 40 hours a week, with mobile clinics that go to various locations two hours a week.

"I would say that stigma and transportation are the biggest obstacles to any kind of care in rural communities—addiction, HIV, mental health. There is tremendous stigma around any of these topics. What that turns out to mean in the field is the work is slower than you would like, painstaking. You have to spend a lot of time gaining people's trust, and even then, they may not agree, but at least they would listen to you."

Judith Feinberg, Professor, Behavioral Medicine & Psychiatry, West Virginia University

- ▶ Establish **local treatment and prevention** for people who have substance use disorder.
- ▶ **Develop and support programs that distribute naloxone** at saturation levels directly to people in communities at high risk.
- ▶ Streamline **immediate access to medical care** to ensure that people with HIV do not have to wait for care.
- ▶ Investigate the ability of **MAT providers** to prescribe and/or administer HIV medications.
- ▶ Develop a **case management model for people who have substance use disorder**, combining lessons learned from medical and nonmedical case management implementation. Establish and share coordinated care plans across RWHAP and behavioral health.

"Stigma is crosscutting, regardless of health care policy and financing landscapes."

Daniel Raymond, Deputy Director, Planning & Policy, Harm Reduction Coalition

Systems Changes

- ▶ Explore opportunities to enact **policy changes** to make buprenorphine available in more settings, including SSPs, jails, emergency departments, and homeless shelters.
- ▶ **Educate** all team and support system members (RWHAP case managers, primary care providers, family, etc.) on addiction disease and management in an effort to enact change.
- ▶ **Provide training** on pain management, including dealing with both the pain people have and the reasons why people might be misusing substances. Give options for people who might be ready for harm reduction, not elimination.
- ▶ **Support frontline staff** who are directly impacted by trauma on a regular basis.

"Medicaid expansion has been critical because it opens up opportunity. [It] opens up people to a range of services beyond what Part A would fund. [It] opens up PrEP [pre-exposure prophylaxis]. It has been critical for people accessing services."

Coleman Terrell, Director, Philadelphia Part A

Although RWHAP recipients have implemented work related to the opioid crisis into their service structures, TEP participants noted that those efforts are just beginning to meet the needs. They indicated that much more effort is needed to fully address the HIV and opioid epidemics. HRSA HAB encourages recipients to consider ways to further their efforts to address the opioid epidemic in their existing and future service structures.

HOW HRSA'S RWHAP CAN SUPPORT PEOPLE WITH HIV WHO HAVE SUBSTANCE USE DISORDER

RWHAP recipients are funded to provide a range of services to support the HIV-related needs of eligible individuals. [HRSA HAB Policy Clarification Notice \(PCN\) 16-02](#) details the allowable uses of RWHAP funds to provide services to both people with HIV and, in some instances, people who are affected by HIV. To be an allowable cost under the HRSA RWHAP, all services must—

- ▶ Relate to HIV diagnosis, care, and support,
- ▶ Adhere to established HIV clinical practice standards consistent with U.S. Department of Health and Human Services (HHS) [Clinical Guidelines](#) for the treatment of HIV and other related or pertinent clinical guidelines, and
- ▶ Comply with state and local regulations and be provided by licensed or authorized providers, as applicable.

Although PCN 16-02 specifically outlines the allowable activities under the Substance Abuse Outpatient Care and Substance Abuse Services (residential) service categories, all core medical and support services can be leveraged to assist RWHAP clients who have substance use disorder (refer to HRSA HAB PCN 16-02 for the complete service category definitions).

In March 2016, HHS released [guidance](#) on the use of federal funding to support SSPs. The guidance maintains the prohibition of the use of federal funds to purchase sterile needles or syringes for the purpose of injection of any illegal drug; however, it includes funding SSPs as an allowable use of federal funds. In April 2016, HRSA issued [guidance](#) specific to the use of HRSA funds (including RWHAP funds) to support certain components of SSPs. RWHAP recipients should coordinate with their project officers when considering implementation of SSP components as part of their RWHAP-funded work.

RESOURCES

The following resources are available for RWHAP recipients to explore how they can further implement behavioral health services for people with HIV who have substance use disorder.

amfAR. 2019. "Opioid Epidemic/Drug Policy." www.amfar.org/opioid-drug-policy.

Centers for Disease Control and Prevention. 2019. "Opioids Portal." www.cdc.gov/opioids.

Dawson, L., and J. Kates. 2018. "HIV and the Opioid Epidemic: 5 Key Points." Kaiser Family Foundation. www.kff.org/hivaids/issue-brief/hiv-and-the-opioid-epidemic-5-key-points.

U.S. Department of Health and Human Services. August 2012. *Training Manual: Integration of Buprenorphine into HIV Primary Care Settings*. Available at www.targethiv.org/sites/default/files/file-upload/resources/HRSA.%20SPNS.%20HIP%20buprenorphine%20training%20manual.%20508%20compliant.pdf.

U.S. Department of Health and Human Services. 2018. "Substance Use and HIV Risk." www.hiv.gov/hiv-basics/hiv-prevention/reducing-risk-from-alcohol-and-drug-use/substance-use-and-hiv-risk.

U.S. Department of Health and Human Services. 2019. "Help, Resources and Information: National Opioids Crisis." www.hhs.gov/opioids.

Role of Substance Use Providers in Ending the HCV & HIV Epidemics

Summary:

Technical assistance slide set helps educate substance use disorder treatment providers on their critical role in diagnosing and treating those with HCV and HIV.

Our nation's substance use crisis is closely linked to a steep rise in infectious diseases associated with injection drug use, especially hepatitis C and HIV. Approximately 70 percent of new hepatitis C infections occur among people who inject drugs and nine percent of new HIV infections in the United States are related to injection drug use.

Addressing the syndemic of drug misuse and infectious diseases requires a coordinated, multidisciplinary approach. The National Alliance for HIV Education and Workforce Development (NAHEWD) created a [customizable slide set](#) to help educate substance use disorder treatment providers on how important their role is in supporting HIV and hepatitis C testing, prevention, and treatment for their patients. The resource was developed as part of NAHEWD's role in the SAMHSA- supported [Opioid Response Network](#).

This technical assistance resource emphasizes that the guiding principles of substance use care—harm reduction, screening and other prevention interventions, treatment initiation, and linkage to ongoing medical care—are similar to those of viral hepatitis and HIV care. All models focus on patient safety and wellness, with effective medication being critical for the individual's health and for related public health benefits.

While hepatitis C testing rates remain sub-optimal across opioid treatment programs, substance use providers have opportunities to test individuals who inject drugs for hepatitis C and HIV during both intake and follow-up visits, and to facilitate care or linkage to care and treatment when indicated. Identifying people who are early in their infection is critical because with timely diagnosis and curative treatment, people with hepatitis C can prevent potential severe outcomes such as liver disease, cirrhosis, liver cancer, and even death.

Today's highly effective curative treatment is the most powerful tool we have to achieve the goal of hepatitis C elimination. But to fully realize its potential, we need to increase hepatitis C efforts with people who use drugs who are most likely to transmit the virus to others. Increasing hepatitis C cure is possible through leveraging existing infrastructure and providing much-needed viral hepatitis and HIV services in the substance use disorder treatment programs that people who use drugs already access and trust. This slide set is ready-to-use to help call attention to and provide support for opportunities to cure hepatitis C.

Related blog posts:

- [SAMHSA Urges Focus on Synergistic Epidemics of Substance Use Disorder, HIV, and Viral Hepatitis](#)
- [Substance Misuse, Infectious Disease, and the Powerful Potential of Syringe](#)

[Service Programs](#)

- [Three Medical Societies Identify Specific Infections of Concern in Relation to the Opioid Crisis](#)

Injection drug use and infectious diseases go hand-in-hand. Substance use disorder treatment providers are well-positioned to diagnose and treat people with hepatitis C & HIV <https://go.usa.gov/xpphF>

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