



## A qualitative analysis of barriers to opioid agonist treatment for racial/ethnic minoritized populations

Jawad M. Husain<sup>a,b,\*</sup>, Devin Cromartie<sup>c,d</sup>, Emma Fitzelle-Jones<sup>e</sup>, Annelise Brochier<sup>f</sup>,  
Christina P.C. Borba<sup>c,d</sup>, Cristina Montalvo<sup>g,h</sup>

<sup>a</sup> Department of Psychiatry, Harvard Medical School, Boston, MA, United States of America

<sup>b</sup> Department of Psychiatry, Mass General Brigham, Boston, MA, United States of America

<sup>c</sup> Department of Psychiatry, Boston University School of Medicine, Boston, MA, United States of America

<sup>d</sup> Department of Psychiatry, Boston Medical Center, Boston, MA, United States of America

<sup>e</sup> New England Geriatric Research Education and Clinical Center, VA Boston Healthcare System, Boston, MA, United States of America

<sup>f</sup> Department of Pediatrics, Boston Medical Center, Boston, MA, United States of America

<sup>g</sup> Department of Psychiatry, Tufts University School of Medicine, Boston, MA, United States of America

<sup>h</sup> Department of Psychiatry, Tufts Medical Center, Boston, MA, United States of America

### ARTICLE INFO

#### Keywords:

Racial  
Ethnic  
Minoritized  
BIPOC  
Opioid use disorder  
Opioid agonist treatment  
Buprenorphine  
Methadone  
Medications for opioid use disorder

### ABSTRACT

**Introduction:** Clinical guidelines strongly recommend opioid agonist treatment (OAT) as first-line treatment for opioid use disorder (OUD). However, racial/ethnic minoritized patients are less likely to receive OAT compared to non-Hispanic White patients. Reasons for this treatment gap must be elucidated to address racial/ethnic disparities in OAT. Our objective is to evaluate perceptions of and barriers to OAT across racial/ethnic groups in individuals with OUD (not on OAT).

**Methods:** This qualitative study used semi-structured telephone interviews of adult patients ( $n = 41$ ) with OUD (not currently being treated with OAT) from the Boston area from September 2020 through February 2021. We developed a codebook through author consensus based on review of themes in initial transcripts. We performed qualitative thematic analysis of the transcripts. We evaluated patients' perceptions of treatment for OUD across the study population and analyzed differences and similarities in perceptions between racial and ethnic groups. **Results:** Across all racial/ethnic categories in our sample, anticipated stigma was the most frequently reported barrier to OAT and most patients preferred non-OAT methods for treatment. Non-Hispanic White participants had more favorable opinions of OAT compared to racial/ethnic minoritized participants. Racial/ethnic minoritized participants reported social support as the main facilitator to addiction treatment, while non-Hispanic White participants reported self-motivation as the most important factor. Racial/ethnic minoritized participants preferred treatment for OUD via non-OAT treatments and their second most preferred option was residential treatment. Non-Hispanic White participants preferred naltrexone and their second most preferred option was non-OAT treatments.

**Conclusions:** Racial/ethnic minoritized patients' preference for residential treatment and social support, along with their distrust of OAT, illustrates a desire for psychosocial and peer recovery-based care that addresses social determinants of health. Addiction specialists may improve engagement with and treatment of racial/ethnic minoritized groups with culturally tailored interventions for OUD that offer psychosocial treatment in combination with OAT, and by partnering with organizations with strong ties to racial/ethnic minoritized communities. This kind of response would reflect the structural and cultural humility that is needed to adequately address the OUD needs of these underserved populations.

\* Corresponding author at: 115 Mill Street, Mail Stop 222, Belmont, MA 02478-1064, United States of America.

E-mail address: [jhusain@mgh.harvard.edu](mailto:jhusain@mgh.harvard.edu) (J.M. Husain).

## 1. Introduction

Since 1999, the public health burden of opioid use disorder (OUD) has surpassed half a million deaths (Hedegaard, 2018). Clinical guidelines (Dunlap & Cifu, 2016) strongly recommend opioid agonist treatment (OAT), with either buprenorphine or methadone, as a first-line treatment for opioid use disorder (OUD). OAT is effective in increasing treatment retention, reducing opioid misuse, and preventing death from overdose (Mattick, Breen, Kimber, & Davoli, 2014; Sordo et al., 2017). Despite the efficacy of OAT for preventing opioid overdose deaths, there are clear disparities in opioid overdose deaths across racial/ethnic groups. While the media has traditionally framed the opioid epidemic as a problem primarily affecting non-Hispanic White communities (Hansen & Netherland, 2016), the opioid overdose death rate is actually rising faster in the non-Hispanic Black and Hispanic populations as compared to the non-Hispanic White population, largely due to deaths involving illicit fentanyl (Scholl, 2019; Spencer, Warner, Bastian, Trinidad, & Hedegaard, 2019). These disparities grew wider during the COVID-19 pandemic (Friedman et al., 2021).

In general, racial/ethnic minoritized patients are less likely to initiate (Hadland et al., 2017; Hollander, Chang, Douaihy, Hulse, & Donohue, 2021; Knudsen, Roman, & Oser, 2010; Lagisetty, Ross, Bohner, Clay, & Maust, 2019; Manhapra, Petrakis, & Rosenheck, 2017; Shiner, Leonard Westgate, Bernardy, Schnurr, & Watts, 2017; Stein et al., 2018) or be retained (Lee, Liebschutz, Anderson, & Stein, 2017; Weinstein et al., 2017) in OAT compared to non-Hispanic White patients. Even after an opioid overdose, Black patients and Hispanic patients are less likely to receive follow-up treatment for OUD compared to non-Hispanic White patients (Kilaru et al., 2020).

The type of OAT also varies between non-Hispanic White patients and racial/ethnic minoritized patients. Patients who receive buprenorphine as opposed to methadone are more likely to be of White race, rural, younger, and pay through private insurance or self-pay (Andrews, D'Aunno, Pollack, & Friedmann, 2014; Hansen, Siegel, Wanderling, & DiRocco, 2016; Shiner et al., 2017; Stein et al., 2018).

Prior qualitative literature identifies stigma—coming from patients, providers, friends, or family members—as a major barrier to OAT initiation (Cioe et al., 2020; Larney, Zador, Sincich, & Dolan, 2017; Paquette, Syvertsen, & Pollini, 2018). Based on Crenshaw's (1990) theory of intersectionality—that is people can be marginalized based on multiple, intersecting, oppressed identities—the stigma from being in a racial/ethnic minoritized group intersecting with the stigma of being on OAT may contribute to the racial/ethnic disparities in OAT.

Structural factors, such as geographic health care access or insurance status, may partially explain why non-Hispanic White patients are more likely to receive buprenorphine treatment. Historically, in 2002 the FDA approval of buprenorphine for OUD helped to expand access to medication for opioid use disorder (MOUD); however, rates of adoption increased disproportionately in higher income and predominantly White areas (Hansen et al., 2016; Stein et al., 2018). Private physician practices manage most buprenorphine prescribing (Magura et al., 2007; Roman, Ducharme, & Knudsen, 2006; Stanton, McLeod, Luckey, Kissin, & Sonnefeld, 2006) and patients are often self-paying (Kissin, McLeod, Sonnefeld, & Stanton, 2006) or privately insured (Andrews et al., 2014). Providers may also hold the perception that social instability (e.g., homelessness) may make someone an inappropriate candidate for buprenorphine, despite data against this idea (Alford et al., 2011).

Montalvo, Stankiewicz, Brochier, Henderson, and Borba (2019) observed a disparity in buprenorphine treatment in the demographic analysis of an outpatient behavioral health clinic at Boston Medical Center (BMC), an urban safety-net hospital. Although BMC serves a patient population where approximately 70 % of patients are of a racial/ethnic minoritized group (Boston Medical Center, 2012), racial/ethnic minoritized patients make up less than 15 % of patients receiving buprenorphine treatment in this behavioral health clinic. This finding is consistent with prior national studies showing that patients prescribed

buprenorphine are disproportionately White (Lagisetty et al., 2019; Stanton et al., 2006; Stein et al., 2018).

Prior studies utilized qualitative methods to assess perceptions of OAT (Cioe et al., 2020; Larney et al., 2017; Paquette et al., 2018; Sanders, Roose, Lubrano, & Lucan, 2013; Woo et al., 2017), and assess barriers to treatment with OAT (Sharma et al., 2017). Despite the racial/ethnic disparities in receipt of OAT, the literature exploring perceptions (Hatcher, Mendoza, & Hansen, 2018) and barriers (Hollander et al., 2021) between non-Hispanic White and racial/ethnic minoritized patients is sparse.

In a qualitative study of diverse patients on buprenorphine maintenance treatment from two primary clinics in New York City, NY, Hatcher et al. (2018) found that non-Hispanic White patients were best able to capitalize on the individualized, medical focus of office-based buprenorphine treatment, given they tend to have other sources of social support and resources outside of the buprenorphine. Meanwhile the Black or Latinx participants often found office-based buprenorphine treatment to be isolating and reported that it did not meet their psychosocial needs. In a quantitative analysis of Pennsylvania Medicaid data, Hollander et al. (2021) found that patients spending more days in either the emergency department or jail are less likely to initiate of MOUD. Patients with presence of a non-OUD substance use disorder or those who participated in an intensive non-MOUD treatment are also less likely to initiate MOUD. These authors concluded that increasing MOUD in acute care facilities and criminal justice settings could help to close the racial gap in initiation of MOUD.

To add to the literature and further elucidate the racial/ethnic disparity in not just buprenorphine, but OAT in general, this qualitative study aims to evaluate perceptions of and barriers to OAT within individuals with history of OUD, who are not currently on OAT, between non-Hispanic White and racial/ethnic minoritized patients. With awareness of how systemic racism has worked through institutions and people to oppress racial/ethnic minoritized populations and benefit White populations (Jones, 2000), we expected that there would be evidence of different experiences within the health care system between non-Hispanic White and racial/ethnic minoritized patients that may help to explain the disparity in OAT that exists between these two populations. Whereas Hatcher et al. (2018) qualitatively examined patients' experiences with buprenorphine treatment in racial/ethnic minoritized patients on buprenorphine maintenance treatment, our study will add a distinct contribution to the literature with a qualitative analysis of patients' attitudes, perceptions, and barriers to OAT in a diverse population of patients with OUD, who are not currently on OAT.

## 2. Methods

### 2.1. Study design, participants, and settings

This qualitative study used semi-structured telephone interviews of adult patients ( $n = 41$ ) with OUD (not presently being treated with OAT, but who may have received OAT in the past) from the greater Boston area from September 2020 through February 2021. We utilized purposive sampling to recruit individuals 18 years or older with current OUD or a history of OUD via multiple recruitment methods. We first recruited patients from an urban, safety-net hospital (Boston Medical Center), by contacting patients by telephone from a list of patients who presented to the emergency room with an ICD-10 code related to OUD within the previous 6 months. We generated this list utilizing the hospital's clinical data warehouse. We chose to recruit from this hospital due to its proximity to a neighborhood with a high prevalence of OUD (commonly referred to as "Mass and Cass") and more than 50 % of patients served by this hospital identify as racial/ethnic minoritized. We also recruited individuals with self-reported OUD through flyers posted throughout the hospital and affiliated community health centers, and through Facebook® advertisements. We excluded individuals currently treated with OAT. We confirmed current OAT status via checking the prescription

drug monitoring program for an active buprenorphine prescription and through self-report of current buprenorphine or methadone use in the initial consent process. We did not exclude individuals with prior OAT. We made this decision to ensure that our sample is inclusive of patients who the current health care system has not successfully retained with OAT.

We ended recruitment once our team decided we had reached saturation of themes in the groups; that is based on analysis of the data, the team decides that further data collection is not necessary (Saunders et al., 2018). We reached saturation in both groups when it became apparent that the racial/ethnic minoritized group had reached a near consensus of negative attitudes toward OAT, and that the non-Hispanic White group had consistently more positive attitudes toward OAT compared to the racial/ethnic minoritized group. By this point, new themes had ceased to emerge, and we had collected enough data to generate a plausible hypothesis to explain why the racial/ethnic disparity in OAT exists.

Half of our research team members identify their race/ethnicity as racial/ethnic minoritized (JMH [Asian], DC [non-Hispanic Black], and CM [Hispanic]), and the other half identify their race/ethnicity as non-Hispanic White (EFJ, AB, CPCB). The balanced racial/ethnic breakdown in our team may act to prevent bias in our interpretation of the qualitative data when comparing racial/ethnic minoritized patients to non-Hispanic White participants. Half of the investigators are X-waivered buprenorphine-prescribing psychiatrists (JMH, DC, and CM). Five out of six investigators have Master of Public Health degree training (JMH, DC, EFJ, AB, CPCB).

Boston University Medical Campus Institutional Review Board approved this study. We report our results using the Standards for Reporting Qualitative Research (SRQR) (O'Brien, Harris, Beckman, Reed, & Cook, 2014) guidelines.

## 2.2. Data collection

We developed an interview guide (Table 2) based on a literature review of race-based disparities in OAT. Our interview guide included questions related to treatment experiences, MOUD, substance use stigma, self-identity, and racism. One author (EFJ) conducted semi-structured qualitative interviews up to 90 min in length over the telephone. We de-identified all data. Participants self-reported their demographics (race, ethnicity, and gender) at the beginning of the interview by free response. Participants self-reported their opioid use history based on the interview guide prompts. We used this self-reported history to confirm a diagnosis of OUD with all participants based on the criteria for OUD from the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; DSM-5; American Psychiatric Association, 2013). We audio-recorded interviews using a digital voice recorder device (Sony® ICD-PX470). We transcribed the de-identified recordings verbatim using a human transcription service (Rev.com). We compensated participants with a \$50 gift card for participating in the interview.

## 2.3. Data analysis

We performed the line-by-line coding using NVivo software version 12 Pro (QSR International). We developed the initial codebook through author consensus by reviewing themes in the initial transcripts. Three coders cross-checked the interrater reliability via triangulation (JMH, EFJ, and CM), with two interviewers coding each interview. We calculated interrater reliability in NVivo ( $\kappa = 0.95$  and % agreement = 98.5%). We performed the qualitative analysis using a thematic analysis approach, which allows for interpretation of the underlying assumptions and ideologies that are theorized as informing the semantic content of our data (Braun & Clarke, 2006). We stratified our analyses by race/ethnicity to look for similarities and differences between groups. We reviewed the analyses, using the NVivo hierarchy chart function, which quantifies the frequency of our coded units in the sample of transcript.

We then inductively grouped the most frequently occurring responses into the themes and subthemes, which we will present in our results.

## 3. Results

Forty-one individuals in total completed the interview. The racial/ethnic demographics are as follows: 24 (58.5%) Non-Hispanic Black, 9 (22.0%) Non-Hispanic White, 3 (7.3%) Hispanic/Latinx, 1 (2.4%) Asian, and 4 (9.8%) multiracial (Table 1). None of the Hispanic/Latinx participants identified as multiracial, and vice versa. Due to small sample sizes within racial/ethnic categories, we dichotomized the sample into non-Hispanic White ( $n = 9$ ) and racial/ethnic minority ( $n = 32$ ) for our stratified analyses by race/ethnicity. Most participants identified as female (65.9%) and had public insurance (85.4%). The mean age was 53.2 years and less than half of participants had prior exposure to OAT (34.1% Buprenorphine, 36.6% methadone).

We identified four overarching themes that we refined into subthemes specific to the racial/ethnic minority and non-Hispanic White groups (shown in Table 3 with example quotations). Here we describe the four main themes: 1) Perception of OAT, 2) Facilitators to Addiction Treatment, 3) Barriers to Addiction Treatment, and 4) Preferred Treatment for OUD, and the subthemes, which highlight the differences between the two groups.

### 3.1. Perception of OAT

#### 3.1.1. Strong negative opinions and distrust of OAT

Nearly all the racial/ethnic minoritized respondents strongly opposed OAT.

"[Suboxone] ain't doing nothing but making them more addicted to opiates... Only one that they probably really talk to is their primary care doctor when they trying to talk about what's going on with them, and the first thing the doctors want to prescribe is some opiates." (Participant A, non-Hispanic Black participant).

Racial/ethnic minoritized participants expressed that methadone or buprenorphine are simply "substitutes" for other opioids that people are addicted to. They believe that these medications are largely misused by people with OUD to get high.

"I've had methadone before, and it's also just a substitute for the other drug... you still high, you still high, you still high." (Participant B, non-Hispanic Black participant).

#### 3.1.2. Mixed opinions of OAT

Non-Hispanic White participants shared mixed opinions of OAT in the interviews. They identified some benefits of OAT, but like racial/ethnic minority participants they suggested that OAT was an addiction in and of itself that should eventually be discontinued.

"I'm very torn on this subject. I think that I have seen them be a wonderful resource to people getting sober and I've seen them save lives. I just think it's very important that it's a short-term kind of plan that people get on and then they're weaned off. I've seen people stay addicted to those drugs and end up with just kind of a new ball and chain of their MAT. It keeps people sick. It keeps people around 'those' kind of people." (Participant C, non-Hispanic White participant).

### 3.2. Facilitators to addiction treatment

#### 3.2.1. Social support

Racial/ethnic minority participants more frequently cited aspects of residential treatment or peer support groups that offered social support as their main facilitator to recovery. One participant described their experience with rehab as follows:

**Table 1**  
Demographic characteristics and history of opioid use disorder and treatment, by race/ethnicity.

	Total (n = 41)	Asian (n = 1)	Non-Hispanic Black (n = 24)	Hispanic/Latinx <sup>a</sup> (n = 3)	Non-Hispanic White (n = 9)	Multiracial <sup>b</sup> (n = 4)
Age, mean (SD)	53.2 (10.9)	31	54.2 (9.6)	55.7 (7.5)	53.2 (10.1)	52.2 (10.8)
Sex, n (%)						
Female	27 (65.9)	0	18 (75.0)	2 (66.7)	4 (44.4)	3 (75.0)
Male	13 (31.7)	0	6 (14.6)	1 (33.3)	5 (55.6)	1 (25.0)
Nonbinary/other	1 (2.4)	1 (100)	0 (0)	0	0	0
Insurance, n (%)						
Public	35 (85.4)	1 (100)	21 (51.2)	3 (100)	7 (77.8)	3 (75.0)
Private	5 (12.2)	0	2 (4.9)	0	2 (22.2)	1 (25.0)
Not reported	1 (2.4)	0	1 (2.4)	0	0	0
Prior OAT <sup>c</sup> , n (%)						
Buprenorphine	14 (34.1)	1 (100)	4 (9.8)	0	7 (77.8)	2 (50.0)
Methadone	15 (36.6)	0	8 (19.5)	1 (33.3)	6 (66.7)	0
Currently using opioids, n (%)	7 (17.1)	0	7 (17.1)	0	0	0

<sup>a</sup> Hispanic/Latinx; none of these participants identified as multiracial.

<sup>b</sup> Multiracial; none of these participants identified as Hispanic/Latinx.

<sup>c</sup> OAT = opioid agonist treatment.

*"I developed friendships with people that were going through the same thing - and that kind of helped me there, developing a bond with people like me." (Participant B, non-Hispanic Black participant).*

Across racial/ethnic minority groups, participants mentioned benefits of group therapy and peer support groups.

"I was involved with Mom's Project for women, just for women and the groups helped me to understand like the nature of addiction, like the causes and I really understand what the medical reason was, why I was addicted to drugs and how my brain works and stuff like that." (Participant D, non-Hispanic Black participant).

### 3.2.2. Self-motivation

When asked what facilitated their substance use treatment, Non-Hispanic White participants more frequently cited themselves as the main facilitator to recovery.

"No, I never did any inpatient outpatient programs, it was kind of like just drawing upon my strength. And then during my drug addiction, I wouldn't say I was estranged from my family, but I don't know... I'm not as like open and loving towards my family as I am now and I always kind of drew on my strength and will to quit." (Participant E, non-Hispanic White participant).

One Non-Hispanic White participant identified their recovery plan as:

"I stopped on my own, and I went and paid for private counseling." (Participant F, non-Hispanic White participant).

### 3.3. Barriers to addiction treatment

#### 3.3.1. Internalized stigma toward people treated with OAT

For racial/ethnic minoritized participants who had not been treated with OAT, one of the barriers seemed to be a perception that people who are on either methadone or buprenorphine appear to be "getting high" and are therefore not actually in recovery.

"I have a lot of associates that are also addicts and they're also using Suboxone to help them with the using and to curb their, to curb their craving. And it's supposed to help them. I've never taken a Suboxone. So, I couldn't give you that, too much information, but it's from my observation, the people that were around me take them, they take Suboxones to curb the usage of [opioids]... but it's still the same effect to me. Looks like they're still high." (Participant B, non-Hispanic Black participant).

Another participant commenting on methadone mentioned:

"[Methadone] makes you look like a dope fiend." (Participant G, non-Hispanic Black participant).

#### 3.3.2. Anticipated stigma for OAT from family/community

Non-Hispanic White participants more frequently mentioned anticipated stigma as the main barrier to OAT. One Non-Hispanic White participant described how they were treated by family and friends after initiating buprenorphine: "Oh, like a leper. I was like a pariah. You know? They treated me worse on Suboxone, which is used to treat my addiction and to help me stay off of drugs... They treated me worse when I was on that than they did when they knew I was sniffing heroin." (Participant H, non-Hispanic White participant).

One Non-Hispanic White participant described their community's response to them being on methadone as follows:

"My church just shut me right down. Oh no. Uh-uh. Oh yeah. Oh yeah. So then I needed to get a CORI because when I first got clean, I was going for a job...and I had to go to the chief of police in town. He wouldn't do it. He says, cause I don't think you're a moral person." (Participant I, non-Hispanic White participant).

### 3.4. Preferred treatment for OUD

#### 3.4.1. Non-OAT treatment

Racial/ethnic minoritized participants most preferred method for quitting opioids was non-OAT treatment (participants commonly referred to this method as "cold turkey").

"I always went cold turkey...If I went to jail or just went in the program." (Participant J, non-Hispanic Black participant).

Non-Hispanic White participants second most preferred option for quitting opioids was non-OAT treatment. Racial/ethnic minoritized participants second most preferred option was residential treatment. One racial/ethnic minority participant described their experience with residential treatment as the following:

"It was a nine-month program where I lived in the program for that whole year, and then my baby got to come with me. So, he did the transition with me when we was there. It was a long road. It took a lot of tries - a long time. But I don't know, after a while I got it together." (Participant K, non-Hispanic Black participant).

#### 3.4.2. Naltrexone

Non-Hispanic White participants' most preferred option for quitting opioids was intramuscular extended-release naltrexone because it did not cause physiological dependence to an opioid.

**Table 2**

Interview guide.

#	Interview question
1	Can you tell me a little bit about where you grew up?
2	In general, how would you say that a person's identity impacts the way they move through the world?
3	Tell me about your opioid use history? <ul style="list-style-type: none"> <li>a. When/how started</li> <li>b. What opioids used</li> <li>c. Attempts to quit</li> <li>d. Physical/psychological/social consequences of use</li> <li>e. Current status</li> <li>f. How do you feel about your opioid use history?</li> </ul>
4	Tell me about your use of other drugs, including alcohol? <ul style="list-style-type: none"> <li>a. When/how started</li> <li>b. What drugs used</li> <li>c. Attempts to quit</li> <li>d. Physical/psychological/social consequences of use</li> <li>e. Current status</li> <li>f. How do you feel about your drug/alcohol use history?</li> </ul>
5	How have people treated you in the past because of your opioid use history? <ul style="list-style-type: none"> <li>a. Family members?</li> <li>b. Healthcare workers?</li> <li>c. Friends?</li> </ul>
6	What has your experience with opioid use disorder treatment been like? <ul style="list-style-type: none"> <li>a. Positive experiences</li> <li>b. Negative experiences</li> </ul>
7	What do you think was the main reason for this/these experiences <ul style="list-style-type: none"> <li>a. Your ancestry or national origins</li> <li>b. Your gender</li> <li>c. Your race</li> <li>d. Your age</li> <li>e. Your religion</li> <li>f. Your height or weight</li> <li>g. Your shade of skin color</li> <li>h. Your sexual orientation</li> <li>i. Your education or income level</li> <li>j. A physical disability</li> <li>k. Other</li> </ul>
8	What are your thoughts on using medications to treat opioid use? What have you heard regarding these treatments? <ul style="list-style-type: none"> <li>a. Buprenorphine (AKA Suboxone™, Subutex™)</li> <li>b. Methadone</li> <li>c. Naltrexone (AKA Revia™, Vivitrol™)</li> </ul>
9	If you have used any of these medications for opioid use disorder (buprenorphine, methadone, naltrexone) in the past, what was your experience like?
10	Would you choose buprenorphine over the other two treatments (naltrexone or methadone)? <ul style="list-style-type: none"> <li>a. Why/Why not?</li> </ul>
11	What has kept you from starting buprenorphine maintenance treatment (BMT) in the past? (if never on buprenorphine) <ul style="list-style-type: none"> <li>a. Money/insurance</li> <li>b. Finding a prescriber</li> <li>c. Convincing provider to start you on this treatment</li> <li>d. Possible consequence of use (access to programs, side effects, etc.)</li> <li>e. Perceived efficacy</li> <li>f. Perceived stigma</li> <li>g. Lack of knowledge</li> </ul>
12	What was your experience with BMT? (If previously on buprenorphine) <ul style="list-style-type: none"> <li>a. Length of treatment</li> <li>b. Reason for cessation</li> <li>c. Difficulty staying on BMT</li> <li>d. Benefits of BMT</li> <li>e. Drawbacks of BMT</li> </ul>
13	Do you feel your race/ethnicity has affected your treatment for opioid use disorder?

**Table 2 (continued)**

#	Interview question
	a. If so, how? b. If no, why not?
14	Do you feel your race/ethnicity has affected your treatment for opioid use disorder? <ul style="list-style-type: none"> <li>a. If so, how?</li> <li>b. If no, why not?</li> </ul>
15	Would you feel comfortable talking to a doctor about your substance use history? Why/why not?
16	How do you feel people would treat you if they knew you were on buprenorphine-naloxone (Suboxone) (anticipated stigma)? <ul style="list-style-type: none"> <li>a. Family members?</li> <li>b. Healthcare workers?</li> <li>c. Friends?</li> </ul>
17	How do people in your social network/community (friends, family, etc.) view drug use? How common is it in your social network/community?
18	How much of a problem is opioid use for you? What are the consequences of continued use?
19	Have you suffered any legal consequences of your drug use? If so, what were they?
20	On a scale of 0–10 how confident are you that you could stop using (n)? What makes you n and not a n + 1? What makes you a n and not a n-1?
21	What could Boston Medical Center do to make their addiction care services better for you?

**Table 3**

Themes and subthemes, dichotomized by racial/ethnic minoritized vs. non-Hispanic White race/ethnicity.

	Racial/ethnic minoritized	Non-Hispanic White
Perception of OAT	Strong negative opinions and distrust of OAT	Mixed opinions of OAT
Facilitators to addiction treatment	Social support	Self-motivation
Barriers to addiction treatment	Internalized stigma toward people treated with OAT	Anticipated stigma for OAT from family/community
Preferred treatment for OUD	Non-OAT treatment, residential treatment	Naltrexone, Non-OAT treatment

“I’m a believer in Vivitrol, you don’t get sick from the Vivitrol.” (Participant L, non-Hispanic White participant).

One Non-Hispanic White participant described the benefits of intramuscular extended-release naltrexone as follows:

“I think it's appealing because the rumors are that it's working, that people on Vivitrol... That it is kind of getting rid of the cravings. That it curbs your cravings, and it stops you for 30 days. I like the idea that like somebody can want to be sober, get a shot and then even if they change their minds in the next 30 days, they still have to take over. I like that they have to stick with it.” (Participant C, non-Hispanic White participant).

**4. Discussion**

This qualitative study on adult patients with a history of OUD revealed different perceptions of treatment options and manifestations of stigma between racial/ethnic minoritized participants and non-Hispanic White participants. Racial/ethnic minoritized participants expressed a stronger distrust of OAT with internalized stigma as the main barrier to this type of treatment. Therefore, they preferred non-OAT options for treatment. Racial/ethnic minoritized participants also noted social support as the main facilitator to treatment. Non-Hispanic White participants expressed mixed opinions of OAT with anticipated stigma from family/community as the main barrier to this type of treatment. They preferred naltrexone as treatment for OAT and noted



self-motivation as the main facilitator to treatment. We seek to contextualize our results within a structurally competent lens to enable readers to apply our findings to make their practice of substance use disorder treatment accessible to minoritized groups.

While racial/ethnic minoritized participants expressed stronger distrust of OAT than non-Hispanic White participants, they also expressed more of a preference for psychosocial interventions such as residential treatment and peer recovery-based care. These findings are consistent with prior studies that show a higher level of medical distrust from racial/ethnic minoritized groups compared to white individuals (Armstrong et al., 2008; Rajakumar, Thomas, Musa, Almario, & Garza, 2009). This distrust of medicalized treatment, along with the desire for interventions that address social determinants of health, illustrates the importance of structural competency in OUD care, especially for racial/ethnic minoritized groups.

When we employ the structural competency model proposed by Metz and Hansen (2014), which emphasizes consideration of upstream structural causes of medical outcomes, we can contextualize racial/ethnic minoritized groups' distrust of OAT with the history of policies that stigmatized OUD treatment—especially the disproportionate criminalization of drug use among non-Hispanic Black and Hispanic populations (King, 1953; Sacco, 2014). We can also consider the limited access of racial/ethnic minoritized populations to buprenorphine upon its initial implementation (Hansen & Netherland, 2016) and the general history of racism in health care (Suite, La Bril, Primm, & Harrison-Ross, 2007). This context allows us to interpret what could be considered a “cultural” presentation into a “structural” one—a culturally bound distrust of OAT which results from structural stigma and discrimination (Metz & Hansen, 2014). Therefore, research proposed that interventions designed for minoritized groups should not only be culturally responsive but structurally responsive to social needs that result from culturally/racially bound hardship (i.e., racism and xenophobia).

Regarding minoritized participant preference for residential treatment programs, we should consider that they not only provide housing but also support the patient as they seek jobs or education in their recovery journey. However, these programs are less likely to offer OAT beyond acute withdrawal needs and less likely to encourage OAT as an option for treatment, with the majority focusing on 12-step programs (Beetham et al., 2020; Hollander et al., 2021; Wakeman et al., 2020). Residential treatment programs may be preferred by racial/ethnic minoritized groups, despite the lower likelihood of these programs to initiate OAT, because they are structurally responsive to the needs of racial/ethnic minoritized patients. Addiction specialists who wish to provide similar structurally responsive care can assess the structural needs of OUD patients (Jegade, 2020), which could then be addressed through case management support.

Racial/ethnic minoritized participants in this study also recognized the importance of social engagement and support. To contextualize this, some of our minoritized participants not only highlighted the experiences of stigma because of their OUD but also because of their racial/ethnic minoritized status. If we frame this finding in structural terms, we can consider the intersecting stigmatization against patients with SUD who are also members of marginalized racial and ethnic groups (Hatcher et al., 2018), which has been a result of stigmatizing drug policies as discussed above (King, 1953; Sacco, 2014). Intersecting social stigma will compound the effect of social isolation, making social support paramount for minoritized OUD patients. Addiction specialists should consider referral to a culturally congruent social program for their racial/ethnic minoritized patients. One type of intervention that is evidence-based in treating SUDs, (Humphreys et al., 2020) and is also known to provide strong peer support is the 12-step program (e.g. Alcoholics Anonymous or Narcotics Anonymous). However, some of these 12-step programs are known to dissuade participants from taking OAT (NA World Services, Inc., 2016; Rychtarik, Connors, Dermen, & Stasiewicz, 2000), and patients may need to search for a 12-step group that is culturally congruent and open to OAT (Richard-Craven, 2021; White,

2018).

Finally, the overall theme of earned distrust that racial/ethnic minoritized groups have against medicalized OUD care needs to be addressed. Through building of partnerships with some of the aforementioned institutions (e.g., residential programs, 12-step programs, faith-based institutions) that are trusted by members of minoritized communities, an opportunity exists for medical providers to build trusting relationships and correct misinformation about OAT. The principles of Community Based Participatory Research (CBPR) can be drawn upon to facilitate a truly equitable partnership that can facilitate trust. These principles include mutual respect and bi-directional learning, active and inclusive access to participation, power-sharing and equity, mutual benefit in research and/or intervention, and flexibility in goals, methods, and time frames (Burke et al., 2013). Institutions that provide addiction services should consider instituting a Community Advisory Board to operationalize these principles, and to assure implementation of culturally (Waters & Asbill, 2013) and structurally (Metz & Hansen, 2014) humble care that does not overutilize culturally blind medicalized interventions for OUD.

Overall, our study follows up on the literature that already describes and explores the inequity in OUD treatment between racial/ethnic minoritized groups and the non-Hispanic White population. Our goal was to further explore this inequity from the perspective of OUD patients who are not currently on OAT. The strategy of targeting participants who are not currently on OAT, as well as comparing racial/ethnic minoritized and non-Hispanic White groups, makes our study novel. Ours is one of the few studies to interpret results through a structural competency lens with the goal of helping readers to operationalize our findings toward reducing inequity in treatment outcomes between racial/ethnic minoritized and non-Hispanic White groups.

#### 4.1. Limitations

Our study is limited to participants from a single region, primarily coming from one urban, safety-net hospital. However, we believe the diversity of this hospital catchment area covers a wide range of cultures that could be represented in other geographic areas as well. The COVID-19 pandemic restricted our study to audio-telephone interviews, which may have limited the interaction between the interviewer and the participant without access to non-verbal cues, and sometimes reduced the quality of audio-transcription. Since our study aimed to understand minoritized experiences with OUD care, the race/ethnicity of our interviewer (non-Hispanic White) could have limited minoritized participant openness to sharing beliefs and experiences, although conducting interviews over telephone may have reduced the impact of race/ethnicity discordance. Our research team's lack of a Spanish-speaking interviewer was a barrier for recruiting Hispanic patients. The decision to dichotomize the qualitative data into “non-Hispanic White” and “racial/ethnic minoritized” categories was partially a reaction to difficulty with recruiting a more racially/ethnically diverse sample of participants. However, we dichotomized racial/ethnic groups with awareness of the important differences between the groups included in the “racial/ethnic minoritized” category. We hope future studies explore the differences in experiences between racial/ethnic minoritized groups, while also believing that our study contributes to the literature on barriers to OAT for the racial/ethnic minoritized groups represented in our sample.

We did not record the length of treatment for patients with past OAT, as this was a qualitative study and we tried to keep the questions in the interview guide open-ended. However, no patients in the sample reported stopping OAT because they felt their OUD had been successfully treated and no longer required OAT to remain in remission.

## 5. Conclusions

Racially/ethnically minoritized populations continue to die from

opioid overdose deaths at alarming rates, yet they receive life-saving OAT at lower rates compared to the non-Hispanic White population. Although racial/ethnic minoritized populations are generally known to have decreased access to health care, this disparity in OAT still exists in safety-net institutions where OAT treatment is available to a largely racial/ethnic minoritized population (Weinstein et al., 2017). In our discussions with patients, we found that racial/ethnic minoritized participants expressed a stronger distrust and stigma against OAT and a preference for psychosocial treatment that addressed social determinants of health compared to non-Hispanic White participants. We believe that an emphasis on cultural and structural humility in OUD care would counteract these barriers to treatment in minoritized populations. Future studies should focus on collaborating with community-based leaders to implement educational opportunities to combat internalized and societal stigma as a means of engaging historically underrepresented groups with OUD to improve SUD treatment initiation and retention.

## Funding

APA/SAMHSA Minority Fellowship Program (SM080388-01).  
Boston Medical Center Gennaro Acampora Charitable Trust Fund.

## CRediT authorship contribution statement

**Jawad M. Husain:** Conceptualization, Methodology, Formal analysis, Writing – original draft, Writing – review & editing, Funding acquisition. **Devin Cromartie:** Conceptualization, Methodology, Writing – original draft, Writing – review & editing. **Emma Fitzelle-Jones:** Investigation, Formal analysis, Writing – original draft, Writing – review & editing. **Annelise Brochier:** Conceptualization, Methodology, Writing – review & editing. **Christina P.C. Borba:** Conceptualization, Supervision. **Cristina Montalvo:** Conceptualization, Methodology, Formal analysis, Writing – original draft, Writing – review & editing, Funding acquisition, Supervision.

## Declaration of competing interest

Jawad M. Husain, MD – none.  
Devin Cromartie MD, MPH – none.  
Emma Fitzelle-Jones, MPH – none.  
Annelise Brochier, MPH – none.  
Christina P.C. Borba, PhD, MPH – none.  
Cristina Montalvo, MD, MBS – none.

## Acknowledgements

We thank the following individuals for their support in this project: Michelle Durham, MD, MPH, David C. Henderson, MD, Daisy Perez, MPH, and Aderonke Bamgbose Pederson, MD.

## References

- Alford, D. P., LaBelle, C. T., Kretsch, N., Bergeron, A., Winter, M., Botticelli, M., & Samet, J. H. (2011). Collaborative care of opioid-addicted patients in primary care using buprenorphine: Five-year experience. *Arch. Int. Med.*, *171*(5), 425–431. <https://doi.org/10.1001/archintermed.2010.541>
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.). American Psychiatric Association.
- Andrews, C. M., D'Aunno, T. A., Pollack, H. A., & Friedmann, P. D. (2014). Adoption of evidence-based clinical innovations: The case of buprenorphine use by opioid treatment programs. *Med. Care Res. Rev.MCRR*, *71*(1), 43–60. <https://doi.org/10.1177/1077558713503188>
- Armstrong, K., McMurphy, S., Dean, L. T., Micco, E., Putt, M., Halbert, C. H., Schwartz, J. S., Sankar, P., Pyeritz, R. E., Bernhardt, B., & Shea, J. A. (2008). Differences in the patterns of health care system distrust between blacks and whites. *J. General Int. Med.*, *23*(6), 827–833. <https://doi.org/10.1007/s11606-008-0561-9>
- Beetham, T., Saloner, B., Gaye, M., Wakeman, S. E., Frank, R. G., & Barnett, M. L. (2020). Therapies offered at residential addiction treatment programs in the United States. *JAMA*, *324*(8), 804. <https://doi.org/10.1001/jama.2020.8969>
- Boston Medical Center. (2012). Delivery system transformation initiatives proposal for the Massachusetts section 1115 waiver demonstration years 15–17. <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/do wnloads/ma/MassHealth/ma-masshealth-boston-medical-dsti-06142012.pdf>.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qual.Res.Psychol.*, *3*(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- Burke, J. G., Hess, S., Hoffmann, K., Guizzetti, L., Loy, E., Gielen, A., Bailey, M., Walnoha, A., Barbee, G., & Yonas, M. (2013). Translating community-based participatory research (CBPR) principles into practice: Building a research agenda to reduce intimate partner violence. *Progress in Community Health Partnerships : Research, Education, and Action*, *7*(2), 115–122. <https://doi.org/10.1353/cpr.2013.0025>
- Cioe, K., Biondi, B. E., Easley, R., Simard, A., Zheng, X., & Springer, S. A. (2020). A systematic review of patients' and providers' perspectives of medications for treatment of opioid use disorder. *J. Subst. Abuse Treat.*, *119*, Article 108146. <https://doi.org/10.1016/j.jsat.2020.108146>
- Crenshaw, K. (1990). Mapping the margins: Intersectionality, identity politics, and violence against women of color. *Stanford Law Rev.*, *43*, 1241.
- Dunlap, B., & Cifu, A. S. (2016). Clinical Management of Opioid use Disorder. *JAMA*, *316*(3), 338–339. <https://doi.org/10.1001/jama.2016.9795>
- Friedman, J., Hansen, H., Bluthenthal, R. N., Harawa, N., Jordan, A., & Beletsky, L. (2021). Growing racial/ethnic disparities in overdose mortality before and during the COVID-19 pandemic in California. *Prev. Med.*, *153*, Article 106845. <https://doi.org/10.1016/j.ypmed.2021.106845>
- Hadland, S. E., Wharam, J. F., Schuster, M. A., Zhang, F., Samet, J. H., & Larochele, M. R. (2017). Trends in receipt of buprenorphine and naltrexone for opioid use disorder among adolescents and young adults, 2001–2014. *JAMA Pediatrics*, *171*(8), 747–755. <https://doi.org/10.1001/jamapediatrics.2017.0745>
- Hansen, H., & Netherland, J. (2016). Is the prescription opioid epidemic a white Problem? *Am. J. Public Health*, *106*(12), 2127–2129. <https://doi.org/10.2105/AJPH.2016.303483>
- Hansen, H., Siegel, C., Wanderling, J., & DiRocco, D. (2016). Buprenorphine and methadone treatment for opioid dependence by income, ethnicity and race of neighborhoods in New York City. *Drug Alcohol Depend.*, *164*, 14–21. <https://doi.org/10.1016/j.drugalcdep.2016.03.028>
- Hatcher, A. E., Mendoza, S., & Hansen, H. (2018). At the expense of a life: Race, class, and the meaning of buprenorphine in pharmaceuticalized “Care”. *Substance Use & Misuse*, *53*(2), 301–310. <https://doi.org/10.1080/10826084.2017.1385633>
- Hedegaard, H. (2018). *In Drug Overdose Deaths in the United States, 1999–2017*. 329 (p. 8).
- Hollander, M. A. G., Chang, C.-C. H., Douaihy, A. B., Hulsey, E., & Donohue, J. M. (2021). Racial inequity in medication treatment for opioid use disorder: Exploring potential facilitators and barriers to use. *DrugAlcohol Depend.*, *227*, Article 108927. <https://doi.org/10.1016/j.drugalcdep.2021.108927>
- Humphreys, K., Barreto, N. B., Alessi, S. M., Carroll, K. M., Crits-Christoph, P., Donovan, D. M., Kelly, J. F., Schottenfeld, R. S., Timko, C., & Wagner, T. H. (2020). Impact of 12 step mutual help groups on drug use disorder patients across six clinical trials. *Drug Alcohol Depend.*, *215*, Article 108213. <https://doi.org/10.1016/j.drugalcdep.2020.108213>
- Jegede, O. (2020). Addiction, race, and the structurally vulnerable: Addiction, race, and the structurally vulnerable. *m. J. Addict.*, *29*(5), 428–429. <https://doi.org/10.1111/ajad.13090>
- Jones, C. P. (2000). Levels of racism: A theoretic framework and a gardener's tale. *Am. J. Public Health*, *90*(8), 1212–1215.
- Kilaru, A. S., Xiong, A., Lowenstein, M., Meisel, Z. F., Perrone, J., Khatri, U., Mitra, N., & Delgado, M. K. (2020). Incidence of treatment for opioid use disorder following nonfatal overdose in commercially insured patients. *JAMA Network Open*, *3*(5), e205852. <https://doi.org/10.1001/jamanetworkopen.2020.5852>. e205852.
- King, R. G. (1953). The narcotics bureau and the Harrison act: Jailing the healers and the sick. *ale Law J.*, *62*(5), 736. <https://doi.org/10.2307/793503>
- Kissin, W., McLeod, C., Sonnefeld, J., & Stanton, A. (2006). Experiences of a national sample of qualified addiction specialists who have and have not prescribed buprenorphine for opioid dependence. *J.Addict. Dis.*, *25*(4), 91–103. [https://doi.org/10.1300/J069v25n04\\_09](https://doi.org/10.1300/J069v25n04_09)
- Knudsen, H. K., Roman, P. M., & Oser, C. B. (2010). Facilitating factors and barriers to the use of medications in publicly funded addiction treatment organizations. *J. Addict. Med.*, *4*(2), 99–107. <https://doi.org/10.1097/ADM.0b013e3181b41a32>
- Lagisetty, P. A., Ross, R., Bohnert, A., Clay, M., & Maust, D. T. (2019). Buprenorphine treatment divide by Race/Ethnicity and payment. *JAMA Psychiatry*, *76*(9), 979–981. <https://doi.org/10.1001/jamapsychiatry.2019.0876>
- Larney, S., Zador, D., Sindich, N., & Dolan, K. (2017). A qualitative study of reasons for seeking and ceasing opioid substitution treatment in prisons in New South WalesAustralia. *Drug and Alcohol Rev.*, *36*(3), 305–310. <https://doi.org/10.1111/dar.12442>
- Lee, C. S., Liebschutz, J. M., Anderson, B. J., & Stein, M. D. (2017). Hospitalized opioid-dependent patients: Exploring predictors of buprenorphine treatment entry and retention after discharge. *m. J. Addict.*, *26*(7), 667–672. <https://doi.org/10.1111/ajad.12533>
- Magura, S., Lee, S. J., Salsitz, E. A., Kolodny, A., Whitley, S. D., Taubes, T., Seewald, R., Joseph, H., Kayman, D. J., Fong, C., Marsch, L. A., & Rosenblum, A. (2007). Outcomes of buprenorphine maintenance in office-based practice. *J. Addict. Dis.*, *26*(2), 13–23. [https://doi.org/10.1300/J069v26n02\\_03](https://doi.org/10.1300/J069v26n02_03)
- Manhapra, A., Petrakis, I., & Rosenheck, R. (2017). Three-year retention in buprenorphine treatment for opioid use disorder nationally in the veterans health administration. *m. J. Addict.*, *26*(6), 572–580. <https://doi.org/10.1111/ajad.12553>

- Mattick, R. P., Breen, C., Kimber, J., & Davoli, M. (2014). Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database Syst. Rev.*, 2. <https://doi.org/10.1002/14651858.CD002207.pub4>
- Metzl, J. M., & Hansen, H. (2014). Structural competency: Theorizing a new medical engagement with stigma and inequality. *Soc. Sci. Med.*, 1982(103), 126–133. <https://doi.org/10.1016/j.socscimed.2013.06.032>
- Montalvo, C., Stankiewicz, B., Brochier, A., Henderson, D. C., & Borba, C. P. C. (2019). Long-term retention in an outpatient behavioral health clinic with buprenorphine. *m. J. Addict.*, 28(5), 339–346. <https://doi.org/10.1111/ajad.12896>
- NA World Services, Inc.. (2016). *Narcotics anonymous and persons receiving medication-assisted treatment (Pamphlet)*. NA World Services, Inc.
- O'Brien, B. C., Harris, I. B., Beckman, T. J., Reed, D. A., & Cook, D. A. (2014). Standards for reporting qualitative research: A synthesis of recommendations. *Acad. Med.*, 89(9), 1245–1251. <https://doi.org/10.1097/ACM.0000000000000388>
- Paquette, C. E., Syvertsen, J. L., & Pollini, R. A. (2018). Stigma at every turn: Health services experiences among people who inject drugs. *Inter. J. Drug Policy*, 57, 104–110. <https://doi.org/10.1016/j.drugpo.2018.04.004>
- Rajakumar, K., Thomas, S. B., Musa, D., Almario, D., & Garza, M. A. (2009). Racial differences in parents' distrust of medicine and research. *Arc. Pediatr. Adolesc. Med.*, 163(2), 108–114. <https://doi.org/10.1001/archpediatrics.2008.521>
- Richard-Craven, M. (2021). *Racism triggers me to drink, but zoom-bombers won't let me be black in AA meetings*. USA TODAY.
- Roman, P. M., Ducharme, L. J., & Knudsen, H. K. (2006). Patterns of organization and management in private and public substance abuse treatment programs. *J. Sub. Abuse Treat.*, 31(3), 235–243. <https://doi.org/10.1016/j.jsat.2006.06.017>
- Rychtarik, R. G., Connors, G. J., Dermen, K. H., & Stasiewicz, P. R. (2000). Alcoholics anonymous and the use of medications to prevent relapse: An anonymous survey of member attitudes. *J. Stud. Alcohol*, 61(1), 134–138. <https://doi.org/10.15288/jsa.2000.61.134>
- Sacco, L. N. (2014). Congressional Research Service. In *Drug Enforcement in the United States: History, Policy, and Trends* (p. 30) <https://fas.org/sgp/crs/misc/R43749.pdf>.
- Sanders, J. J., Roose, R. J., Lubrano, M. C., & Lucan, S. C. (2013). Meaning and methadone: Patient perceptions of methadone dose and a model to promote adherence to maintenance treatment. *J. Addict. Med.*, 7(5), 307–313. <https://doi.org/10.1097/ADM.0b013e318297021e>
- Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: Exploring its conceptualization and operationalization. *Quality & Quantity*, 52(4), 1893–1907. <https://doi.org/10.1007/s11135-017-0574-8>
- Scholl, L. (2019). Drug and opioid-involved overdose Deaths—United States, 2013–2017. *MMWR. Morb. Mortal. Weekly Rep.*, 67. <https://doi.org/10.15585/mmwr.mm6751521e1>
- Sharma, A., Kelly, S. M., Mitchell, S. G., Gryczynski, J., O'Grady, K. E., & Schwartz, R. P. (2017). Update on barriers to pharmacotherapy for opioid use disorders. *Current Psychiatry Reports*, 19(6), 35. <https://doi.org/10.1007/s11920-017-0783-9>
- Shiner, B., Leonard Westgate, C., Bernardy, N. C., Schnurr, P. P., & Watts, B. V. (2017). Trends in opioid use disorder diagnoses and medication treatment among veterans with posttraumatic stress disorder. *J. Dual Diagn.*, 13(3), 201–212. <https://doi.org/10.1080/15504263.2017.1325033>
- Sordo, L., Barrio, G., Bravo, M. J., Indave, B. I., Degenhardt, L., Wiessing, L., Ferri, M., & Pastor-Barriuso, R. (2017). Mortality risk during and after opioid substitution treatment: Systematic review and meta-analysis of cohort studies. *BMJ*, 357, Article j1550. <https://doi.org/10.1136/bmj.j1550>
- Spencer, M. R., Warner, M., Bastian, B. A., Trinidad, J. P., & Hedegaard, H. (2019). Drug overdose deaths involving fentanyl, 2011–2016. *Natl. Vital Stat. Rep.*, 68(3), 19.
- Stanton, A., Mcleod, C., Luckey, B., Kissin, W. B., & Sonneck, L. J. (2006). The SAMHSA evaluation of the impact of the DATA waiver program. *Substance Abuse and Mental Health Services Administration*. chrome-extension://efaidnbnmnbbpcjpcglclefindmkaj/[https://www.samhsa.gov/sites/default/files/programs\\_campaigns/medication\\_assisted/evaluation-impact-data-waiver-program-summary.pdf](https://www.samhsa.gov/sites/default/files/programs_campaigns/medication_assisted/evaluation-impact-data-waiver-program-summary.pdf).
- Stein, B. D., Dick, A. W., Sorbero, M., Gordon, A. J., Burns, R. M., Leslie, D. L., & Pacula, R. L. (2018). A population-based examination of trends and disparities in medication treatment for opioid use disorders among Medicaid enrollees. *Substance Abuse*, 39(4), 419–425. <https://doi.org/10.1080/08897077.2018.1449166>
- Suite, D. H., La Bril, R., Primm, A., & Harrison-Ross, P. (2007). Beyond misdiagnosis, misunderstanding and mistrust: Relevance of the historical perspective in the medical and mental health treatment of people of color. *J. Nat. Med. Associat.*, 99(8), 879–885.
- Wakeman, S. E., Larochele, M. R., Ameli, O., Chaisson, C. E., McPheeters, J. T., Crown, W. H., Azocar, F., & Sanghavi, D. M. (2020). Comparative effectiveness of different treatment pathways for opioid use disorder. *JAMA Network Open*, 3(2), Article e1920622. <https://doi.org/10.1001/jamanetworkopen.2019.20622>
- Waters, A., & Asbill, L. (2013, August). APA CYF News: Reflections on cultural humility. <https://www.apa.org/pi/families/resources/newsletter/2013/08/cultural-humility>
- Weinstein, Z. M., Kim, H. W., Cheng, D. M., Quinn, E., Hui, D., Labelle, C. T., Drainoni, M.-L., Bachman, S. S., & Samet, J. H. (2017). Long-term retention in office based opioid treatment with buprenorphine. *J. Sub. Abuse Treat.*, 74, 65–70. <https://doi.org/10.1016/j.jsat.2016.12.010>
- White, B. (2018). *The color and character of AA | emeritus senior research consultant chestnut health systems | William L. White*.
- Woo, J., Bhalerao, A., Bawor, M., Bhatt, M., Dennis, B., Mouravska, N., Zielinski, L., & Samaan, Z. (2017). "Don't judge a book by its Cover": A qualitative study of methadone patients' experiences of stigma. *Substance Abuse: Res. Treat.*, 11. <https://doi.org/10.1177/1178221816685087>, 1178221816685087.