



Exploring the provider and organization level barriers to medication for opioid use disorder treatment for Black Americans: A study protocol

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ABSTRACT

Objectives: This study seeks to examine the provider and organizational factors that could be limiting the treatment of Opioid Use Disorder (OUD) for Black Americans in Texas. Formative research at the provider and organizational level will assist in understanding the current facilitators, potential barriers, and capacity for OUD treatment for Black Americans.

Study design: Using the exploration phase of the Explore, Preparation, Implementation, Sustainment (EPIS) framework, the project will be a formative assessment of local factors that influence Medication for OUD (MOUD) treatment availability for Black Americans to guide the design of a culturally and locally relevant multi-level intervention strategy.

Methods: and analysis: This project will utilize emergent mixed methods to identify and clarify the problems that are obstructing treatment for Black patients with OUD. First, the perspectives of individual providers in their openness and willingness to provide MOUD treatment to Black Americans diagnosed with OUD will be explored through in-depth interviews. The organizational capacity factors associated with increased availability to treatment for Black American OUD patients will be examined with the organizational leaders using an exploratory sequential mixed-methods design. Leader and program managers of organizations that provide MOUD will be invited to participate in an online survey, with the option to participate in a follow-up in-depth interview. All qualitative data from the provider and organization staff interviews will be analyzed with a thematic analysis approach. The analysis of the two different types of qualitative data will be analyzed together, as a form of triangulation.

Conclusions: This project will assess the understandings of individual providers as well as the organizational-level awareness of the cultural contexts of MOUD intervention for Black Americans. This formative research seeks to highlight the current status of the opioid crisis in the Black community, and what additional supports are needed.

1. Introduction

The opioid crisis has fueled dramatic increases in fatal drug overdoses across the U.S. Between 2002 and 2018, the number of opioid overdose deaths grew more than eight-fold, reaching 49,047 deaths in 2019 [1]. Opioid-related overdose death rates, especially those associated with illicitly manufactured fentanyl and fentanyl analogs, have been rapidly increasing among all groups, with a 11-fold increase in

deaths from 2010 to 2019 [2]. Black individuals experienced a 35-fold increase in overdose deaths from synthetic opioids other than methadone during the same period [2], with rapid increases among Black Americans especially in large, central metropolitan areas [3,4]. There has also been a rising trend of polysubstance use related to overdose deaths involving synthetic products in combination with other drugs, such as heroin, benzodiazepines, methamphetamine, and cocaine [1,3]. While Black Americans have lower prevalence of past-year prescription

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opioid misuse and past-year heroin use compared to the national rate [5], and opioid misuse continues to be a problem for older Black Americans [6]. The disproportionate rates of opioid-related deaths among this group highlight the need for ongoing examination of mechanisms underlying within-group variation in outcomes associated with the opioid crisis in Black communities.

Medication for opioid use disorder (MOUD) has become the gold standard to treat patients with opioid use disorder (OUD) and has contributed to significant reductions in opioid use, criminal activity, overdose and other risky behaviors when combined with ancillary treatment strategies like counseling and social support [7]. However Black Americans are far less likely to receive and complete treatment [8, 9], and are more likely to face punitive interventions such as legal system involvement, which are less effective, costly, and have adverse long-term consequences, deepening existing health disparities [8, 10–13]. However, a more nuanced understanding of additional, underlying causes of the health care system barriers for treatment for Black Americans is imperative.

One of the CDC’s recommendations to address the increases in fatal overdoses is to expand access to and provision of treatment for substance use disorders, including providing medications for opioid use disorders [7]. Primary care providers (PCPs) and emergency medicine providers (EMPs) have the potential to serve as gatekeepers for MOUD initiation and maintenance for individuals with OUD. Under the Drug Addiction Treatment Act of 2000 (DATA 2000), qualified U.S. physicians and mid-level practitioners with an “X-license” can offer buprenorphine for opioid dependency in various settings, including in an office. Despite these expansions to increase treatment availability, providers may still face barriers to becoming waived including personal attitudes and beliefs such as overcoming stigma and resistance from other medical staff [14]. Additionally, organizational factors, such as leadership support and organizational culture, can also impact MOUD care [14,15]. This study seeks to examine these provider and organizational factors that could be limiting the MOUD treatment for Black Americans.

2. Methods

2.1. Approach

The Explore, Preparation, Implementation, Sustainment (EPIS) framework is a four-phase model to guide the process of implementing evidence-based strategies and practices to bridge the gap between research and practice [16]. A recent systematic review of the EPIS framework demonstrated how it has been used for various research projects across a range of settings, including public health and community health centers [17]. Examination of service providers and supervisors/administrators attitudes and knowledge of EBP(s) has previously been conducted as part of the Exploration and Preparation phases of the EPIS framework [18,19]. Furthermore, the EPIS framework has been utilized to explore the sustainability of evidence-based responses to the opioid epidemic [20]. This framework is well suited

for this study, as it addresses the health needs of the community, as well as identifies the best evidence-based strategy to address those needs, and subsequently informs whether to adopt the identified strategy.

Using the exploration phase of the framework, the project will be a formative assessment of local factors that influence MOUD treatment availability for Black Americans with OUD to guide the design of a culturally and locally relevant intervention strategy (see Fig. 1). In the exploration phase, the needs of the patients, clients or communities are also considered. While this project focuses on the inner context of treatment organizations and individual providers, additional pilot projects are focusing on the experiences and perspectives of the individuals who have been diagnosed with OUD, and other community stakeholders, also known as the outer context in the EPIS. The findings of each project will be combined and examine together to contribute to the next Preparation phase of the EPIS framework.

For this project, the inner context of exploration includes the (a) individual adopter characteristics of values, goals, social networks, and perceived need for change, and (b) organizational characteristics of absorptive capacity (knowledge, skills, readiness for change), culture, climate, and leadership [16]. Together the two specific aims of this project will utilize mixed methods to identify and clarify the factors that are obstructing treatment for Black patients with OUD.

This study is embedded within and financially supported by a NIMHD-funded Research Center in Minority Health (U54MD015946) at the University of Houston [21]. This study has received extensive feedback and tailoring after multiple consultations with the Community Research Advisory Board (CRAB) within the HEALTH Center for Addictions Research and Cancer Prevention at the University of Houston (UH) [22]. This diverse group of community stakeholders provided feedback on the project design and execution, as well as provided valuable insight into recruitment issues and concerns. All research will be conducted with the approval of the University of Houston IRB, ensuring ethical and safe research methods and analysis for all participants. Informed consent will be obtained from all participants before engaging in the research.

This study will utilize a mixed method design with both quantitative and qualitative methods. See Fig. 2. The first specific aim will utilize qualitative data collection and analysis to examine individual provider perspectives of the opioid crisis in Black communities. The second specific aim will use an exploratory sequential mixed-methods design, starting with a quantitative survey completed by staff on behalf of the organization providing MOUD, and following-up with qualitative surveys to further expand and extend the understanding of the survey results. This mixed method design will provide a more comprehensive account of the different barriers and facilitators to MOUD for Black Americans (see Fig. 2).

Specific Aim 1: Identify the individual perspectives of providers in their openness and willingness to provide MOUD treatment to Black Americans diagnosed with OUD.

In-depth interviews will be conducted with 20 providers. To be

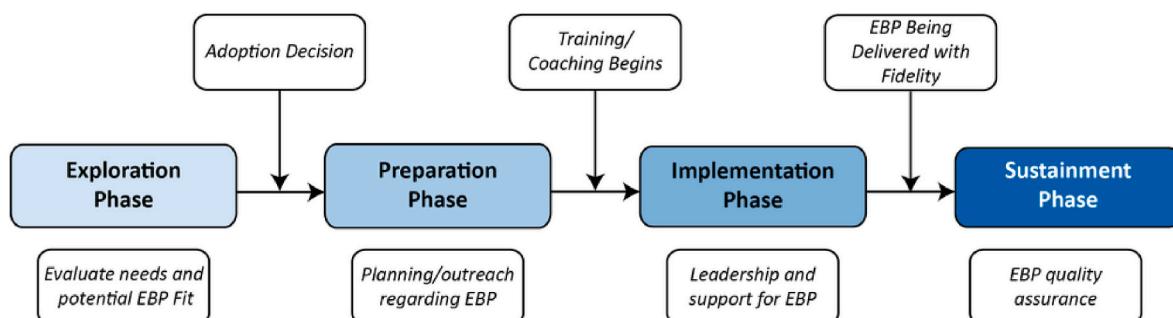


Fig. 1. EPISframework.

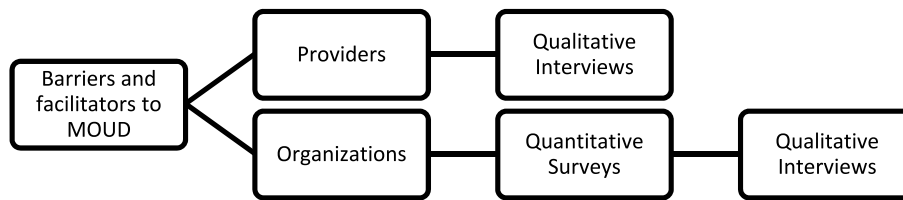


Fig. 2. Mixed method design.

eligible, participants must be current medical providers who are eligible to prescribe buprenorphine with the DATA 2000 Waiver including physicians (MD and DO), nurse practitioners, and physician assistants. Two subgroups will be included as key informants based on their current DATA 2000 Waiver status: (a) individuals who are currently waived or in the process of becoming waived (N = 10) and (b) individuals who are not currently waived (N = 10). The first group are individuals who have already received the necessary training and certification to provide buprenorphine to patients diagnosed with OUD. The second group are providers who are not currently waived to provide buprenorphine. Participants will be offered \$150 Amazon gift cards for their participation in the qualitative interview.

Recruitment will be targeted to providers from areas with large Black American populations across Texas including the Third Ward in Harris County [23]. Providers will be identified through community partners and the SAMHSA website that provides a public directory of individual waived providers [24]. Providers who work in criminal and legal settings will also be recruited, as they may have unique insights on patients who come into treatment through criminal or legal pathways.

A semi-structured interview guide will be developed and used to conduct in-depth, key informant interviews with the providers. The focus of the interviews will include these domains of the individual adopter characteristics from the EPIS framework: values, goals, social networks and perceived need for change. Providers will be asked about their individual level awareness and knowledge of the nationwide opioid crisis, as well as perspective of the opioid crisis specifically within in Black communities. Providers will also be asked about their status and decision making regarding waiving process, and the impact of their organization on their decisions. With the COVID crisis, interviews will be conducted via video conferencing, which has demonstrated similar participant responses as in-person interviews [24,25]. The researcher will start the interview with the informed consent process by reviewing and discussing the informed consent form and answering any participant questions or concerns beginning the interview. Interviews will last approximately 60 min. Immediately after the interview, the researcher will record his/her observations, surroundings, reactions, and other pertinent information as part of field notes.

Specific Aim 2: Characterize the organizational capacity factors associated with increased availability to treatment for Black American OUD patients using an exploratory sequential mixed-methods design.

Formative research at an organizational level will assist in understanding the current facilitators, potential barriers, and capacity for OUD treatment for Black Americans. These specific aims will use an explanatory sequential mixed-method design to identify the organizational capacity factors associated with availability of MOUD treatment for Black American patients (see Fig. 2). Mixed method designs allow the integration of different data types, minimizing the weakness of a single method and have been successfully applied in implementation research.

A quantitative survey will be sent to all of the Texas opioid treatment programs (OTPs) (N = 98) on the SAMHSA website [25]. OTPs are accredited and certified to administer and dispense FDA-approved MOUDs such as methadone and buprenorphine. Surveys will be sent to a random sample of practices that are publicly listed as buprenorphine providers from the SAMHSA website within Harris County, Texas. Online surveys will be emailed to the practices and organizations,

requesting that the organizational leader/staff member who oversees the buprenorphine treatment complete and return the survey. Feedback from the CRAB strongly suggested to use online surveys over mailed paper surveys to elicit responses from organizations. Email addresses for the organizations will be obtained through phone calls and internet searches. During each call to identified organizations, a member of the research team will give a brief introduction of the study, and asked for the most appropriate staff member’s email address to send the survey. Organizational staff members will also be given additional options to complete the survey either over the phone or have the survey faxed. To increase participation in the survey, two reminders will be sent every two weeks.

The quantitative survey will be conducted via the online Qualtrics survey platform. Respondents will be asked to provide their email address to receive a \$75 Amazon gift card for their participation. They will also be requested to indicate whether they would be willing to be contacted for a more in-depth qualitative interview. Affirmative responses will be entered into the purposive sampling frame for key informant interviews to gain in-depth understanding of the unique facilitators and barriers for providing OUD treatment for Black Americans.

The survey will ask respondents about the domains of the organizational characteristics from the EPIS framework: absorptive capacity, including the knowledge, skills, and readiness for change, the culture, climate, and leadership of the organization along with space for free response to describe additional efforts. Respondents will also be asked about their current efforts to increase mental health and other substance use treatment initiation and retention among Black Americans, including their current engagement with community health workers (CHWs) and local community partners such as churches. We will also collect information regarding the treatment capacity and current number of waived providers within the organization.

Subsequent qualitative data collection and analysis will allow for more in-depth exploration of survey findings regarding the barriers and facilitators among organizations across the spectrum of survey responses. Key informants are organizational leaders and staff members who will be purposely selected and recruited for participation to represent one of the two groups based on the results of the quantitative survey (described below): (a) organizations reporting the most barriers, and (b) organizations reporting the fewest barriers (See Fig. 3). Given time and budget constraints, this sampling approach will allow us to explore the potential differences and similarities based on these categories and common concerns and attitudes among both groups. Those

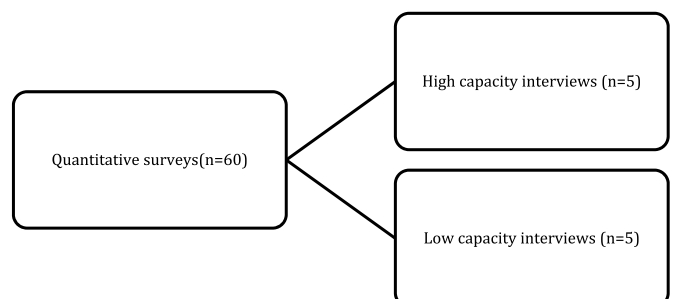


Fig. 3. Organizational surveys and interviews.

participating in key informant interviews will be offered a \$75 Amazon gift card for remuneration. The goal number of key informants interviewed will be 5 in each group for a total of 10 organizational leaders participating in the interviews.

2.1.1. Informed consent process

A waiver of documentation of informed consent is being requested for the quantitative survey. Interview participants will be assured in the informed consent and throughout the interviews that their answers will not be tied to their personal information. They will also be reminded that they do not have to answer any questions they do not feel comfortable answering. All participants will receive a numeric identifier and a pseudonym for use in the data. All transcriptions and any analysis and publications will use the pseudonyms. Any identifying information they share will not be used in public formats (publications, presentations) to protect their individual and organizational identities.

Researchers will review the informed consent document with interview participants answers any questions as part of the informed consent process. The informed consent will require a digital signature through a Qualtrics survey. Participants will be provided with a copy for their own records. This research presents no more than minimal risk of harm to the participants.

For the survey, limited identifying information of individuals will be collected. For individuals who wish to receive a gift card or be considered for the follow-up interview, they will be asked to provide an email address. This information will be kept separate from their survey answers and only accessible by the principal investigator (PI). All data used in analysis will be de-identified. A separate key will be maintained linking the organization name with the survey responses. Any data with personal identifiers (audio files, consent forms, contact information from survey) will be kept separate and in a secured location, with password protections and encryptions. The key to the code will be stored separate from the consent forms and study data.

2.2. Data management and analysis

Data will be managed using the secure platforms provided by Qualtrics for the survey data and Nvivo for the qualitative data [26]. Quantitative data will be analyzed using SPSS. Data will be examined for missingness, outliers, and tested for normality, linearity, and homoscedasticity, with corrections used as appropriate. Descriptive statistics (e. g., frequencies, central tendencies, variabilities) and diagnostic plots of responses will be assessed.

The audio recordings of interviews will be transcribed verbatim using a transcription service, then will be reviewed and checked for accuracy. All qualitative data from the provider and organization staff interviews will be analyzed with a thematic analysis approach [27,28]. Researchers will code the qualitative data using a combination of deductive and inductive coding. The PI and the qualitative analyst have extensive experience with qualitative data collection and analysis methods, specifically within health research with providers. The EPIS framework will provide the initial coding framework, providing the initial codes. However, inductive coding will allow additional codes to be generated from the data. The data will be analyzed in two stages by the qualitative experts on the research team. First, two research team members (the PI and a qualitative analyst) will independently read the original transcript and code the data using the initial codebook, as well as the newly developed inductive codes. Next, independent interpretations for each transcript will be discussed, and the investigators will jointly decide upon a final coding scheme of relevant themes. Individual comments will be categorized according to these themes to determine both the range and the significance of related responses. A descriptive summary will be compiled to highlight the most frequent and dominant themes emerging from each interview. Analysis of the interviews will occur as the data is collected, to allow for new insights and questions to be asked as the qualitative data collection continues.

3. Discussion

Previous research that examines increasing treatment access for MOUD has not focused on addressing the unique needs and challenges faced by Black Americans [14,29–32]. Interventions and strategies that seek to address the unmet treatment needs of Black Americans diagnosed with OUD need to be culturally sensitive and responsive to the additional challenges in such as the (1) doubly stigmatized statuses of being a member of a minoritized group and their status as having a substance use disorder, (2) significant historical and present-day structural racism and indirect and direct harms within health care, social services, and the criminal justice system toward the Black American communities, (3) misperceptions and faulty explanations about addiction and opioids, and (4) lack of culturally responsive and respectful care [10,33,34]. This project will assess the understandings of individual providers as well as the organizational awareness of these cultural contexts for Black Americans with OUD. As interventions and strategies are chosen and adapted to meet the needs of Black Americans, the local factors influencing the treatment need to be taken into consideration in ensuring equitable care and preventing disparities in OUD outcomes.

The results will be shared and disseminated to participants to assist with their current efforts related to the opioid crisis. Since the goal of this project is to develop future strategies and interventions to increase MOUD for Black patients, the findings should be shared with multiple levels of stakeholders including participating organizations as well as the organizations who did not participate, so that they might benefit from the findings. Ideally, there would be community presentations of the findings as well. Community-facing and easy-to-read deliverables, such as infographics that can be shared with organizations and individuals who may have an interest in the findings. This formative research seeks to highlight the current status of the opioid crisis in the Black communities and discover what additional supports and services are needed to provide increased access to treatment for individuals in these communities.

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Declarations of competing interest

Ezemenari M. Obasi is the founder and sole owner of HEALTH Equity Empowerment, LLC.

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