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Place-based harms and hidden strengths: a qualitative study exploring facets of neighborhood disinvestment driving opioid overdose among black individuals

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Abstract

Background Despite significant efforts to address the opioid overdose crisis, Black people who use drugs (PWUD) face unabating, disproportionate increases in opioid overdose death (OOD) rates. These inequities persist in treatment admissions, utilization of medication for opioid use disorder, and treatment retention. Research has linked neighborhood disinvestment — a process of urban decline driven by policy-related changes in neighborhood demand and desirability leading to decreased population, physical and economic erosion, and poorer quality of life for residents — to increased rates of OOD. However, given recent increases in OOD inequities, more research is needed to determine the specific aspects of neighborhood disinvestment that drive OOD risk among Black PWUD.

Methods The current qualitative study utilized a community-engaged research approach to conduct focus groups with stakeholders providing support to PWUD in Black neighborhoods in order to identify the facets of neighborhood disinvestment that contribute and mitigate increases of OOD among Black PWUD in St. Louis, Missouri.

Results The resulting thematic analysis identified four themes linking neighborhood disinvestment to increased rates of OOD among Black PWUD: (1) a lack of access to congruent treatment and services, (2) intergenerational and socioemotional lack of mobility, (3) lack of financial accountability and investment from local leadership and government, and (4) the loss of collective community responsibility and engagement. A fifth theme brought attention to a culturally-grounded strategy being used to reduce these rates: (5) building engagement and community cohesion through grassroots efforts and street outreach.

Conclusions Findings provide key implications for policy and practice, including the importance of adopting a community-based research framework, offering financial management training for Black-led organizations, and harnessing community champions to implement culturally-tailored interventions aimed at reducing stigma and raising critical consciousness. Future work should aim to identify more effective community-driven solutions to address OOD in Black neighborhoods.

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Keywords Black Americans, Community, Opioids, Substance use treatment, Overdose, Racial inequities, Neighborhood deprivation, Harm reduction, Community engaged research

Background

The U.S. opioid overdose epidemic remains a national public health crisis, despite efforts to raise awareness, improve access to resources, advance treatment, increase funding, and support innovative research [1, 2]. According to the Centers for Disease Control and Prevention [3], opioid overdose deaths (OOD) reached a record high of 25.0 per 100,000 people in 2022, reflecting the peak of a crisis that began intensifying a decade prior. This crisis has not affected all Americans equally, however. Among Black Americans, OOD rates rose from 14.1 to 36.6 per 100,000 between 2018 and 2022, a rate of increase more than five times that among White Americans [4]. Although the number of OOD have recently decreased overall, OOD rates continue to rise among Black Americans while decreasing among White Americans, highlighting persistent racial inequities [5]. Research is needed to clarify drivers of these disproportionate rates of death to effectively mitigate OOD and curb the subepidemic of overdose among Black Americans.

Existing federal and local efforts to redress the overdose crisis have not equally benefited Black individuals, who face lower rates of treatment admissions, medications for opioid use disorder utilization, treatment retention, and increasing rates of OOD [6–10]. Black people face barriers to accessing opioid-related services within their communities due to systemic bias and inequitable access to services. Examining social determinants of health (SDOH) reveal structural, community, and interpersonal race-related barriers that perpetuate OOD [11], including a lack of community education, inconsistent transportation, and a healthy mistrust of systems and providers [6, 12]. These factors impact OOD risk by limiting access to treatment, including reducing access to medication for opioid use disorder, due to factors such as provider discrimination or patients' inability to consistently meet regulations for methadone or buprenorphine prescriptions [13, 14]. However, few empirical studies have identified specific race-related SDOH impacting OOD risk among Black Americans [11, 15].

One study conducted in Washington, D.C. [11] highlighted the potential impact of place-based, race-related SDOH, such as residential segregation and the resulting resource-limited neighborhood environment, on recently increasing rates of Black OOD. The authors found the two D.C. neighborhoods housing the majority of the city's Black residents had an increase in OOD of almost 700% between 2014 and 2020 whereas OOD *decreased* during the same time in all other D.C. neighborhoods combined. Thus, Black OOD may not only be driven by interpersonal-level SDOH such as discrimination perpetrated by providers and mistrust of systems [13, 14] but also neighborhood factors such as residential segregation and the related neighborhood disinvestment — a process of urban decline driven by policy-related changes in neighborhood demand and desirability leading to decreased population, physical and economic erosion, and poorer quality of life for residents [16]. Researchers have demonstrated how exposure to disinvested areas during childhood, including those characterized by housing and economic instability, community socioeconomic disadvantage, and neighborhood violence and crime, increase vulnerability to drug use initiation and substance use disorder (SUD) [17], which may in turn, increase vulnerability to OOD. As such, understanding the impact of community-level, race-related SDOH will provide targets for community intervention to decrease the burden of OOD among Black people who use drugs (PWUD).

Although neighborhood disinvestment has disproportionately affected Black communities due to racial segregation [18], Black people do not necessarily face higher rates of all behavioral health problems [19]. Indeed, rapid increases in OOD among Black Americans are relatively recent [20] despite longstanding racial segregation and inequity in neighborhood opportunity [18, 21]. Disproportionate increases in Black OOD are concurrent with the rapid shift of opioid availability from a primarily licit market (e.g., prescription opioids) to a primarily illicit market (e.g., illicitly-manufactured fentanyl) [22, 23]. This shift has increased the syndemic of OOD with other inequalities stemming from disparities in economic and social conditions, including incarceration, interpersonal violence, and poverty and homelessness [23]. For example, recent findings from Cano and colleagues [24] demonstrate that U.S. states where Black people were overrepresented among the unhoused population also had greater racial disproportionality in OOD. There is also evidence that the impact of neighborhood on OOD risk varies by racial group, with factors including poor healthcare access, high population density, and social isolation identified as unique geographic correlates of OOD among Black residents [25]. Thus, further research is needed to illuminate the specific aspects of neighborhood disinvestment contributing to OOD among Black populations.

Nationally, Missouri ranked fourth for the highest rate of OOD among Black individuals in 2022 at 65.7 per 100,000, which is nearly twice the rate among Black individuals nationally [5]. Most of these deaths (74%) are

accounted for by the St. Louis metropolitan region [26], demonstrating this region's racialized sub-epidemic. By leveraging established community partnerships with individuals who represent and serve predominantly Black communities, the current study employs a community-engaged research approach to examine facets of neighborhood disinvestment contributing to OOD among Black PWUD through focus groups with peer outreach and community health workers (CHWs) providing overdose prevention and treatment linkages in St. Louis's Black communities. This community-engaged research approach ensures the integration of community-derived knowledge and prioritizes the needs of those most impacted [27], which is useful for identifying the unique challenges and needs of groups that have been excluded from and underrepresented in scientific inquiry (in this case, Black PWUD living in disinvested neighborhoods). Key stakeholders provided expert knowledge and often lived experience on both the progression and current state of the overdose crisis in Black communities, including community-level barriers to substance use treatment and novel cultural strategies to mitigate these barriers.

Methods

Data for this study was collected as part of the CENTER Initiative [see 28], an academic-community partnership that aimed to reduce overdose, confront the impact of trauma, and invest in the well-being of Black PWUD. The project conducted two focus groups in 2021 with key stakeholders engaged in OOD prevention in Black neighborhoods to examine drivers of the rapid, disproportionate increase of OOD among Black PWUD. Utilizing a grounded theory approach [29], this study identified several themes, including neighborhood disinvestment in Black communities. A third focus group with stakeholders leading or supervising outreach programs was conducted in 2022 to examine potential benefits and challenges of mapping overdose to support data-driven outreach efforts of organizations serving Black PWUD in St. Louis [30]. Discussion included shared questions and topics informed by and shared with the first two focus groups. Through an iterative process of coding, neighborhood-level inequities, including disinvestment, were identified. Given the broad scope of these studies, the current study further examined these data to investigate aspects of neighborhood disinvestment contributing to OOD inequities among Black PWUD.

Participants

Participants included 22 key stakeholders (77% Black; 64% women) who represented and served predominantly Black communities in St. Louis, Missouri. As part of the CENTER initiative, researchers worked closely with community partners (i.e., grassroots non-profit and healthcare organizations working with Black PWUD) during grant writing, study development and implementation. Chosen for their experience in promoting health equity in Black communities, these partners were provided a brief study description in the form of a recruitment script to recruit participants via word of mouth for the first two focus groups. These focus groups were planned during CENTER's grant writing process based on the knowledge that those partners embedded in Black communities during the increasing Black overdose crisis had expert knowledge and solutions that would guide the initiative's future research and advocacy. Recruitment for the third focus group occurred through targeted emails directed at known community partners. Participants were selected based on their experience providing direct services to clients in non-traditional, community-based settings through outreach. Participants engaged in one of three focus groups composed of peer advocates, volunteers, CHWs, and other professionals conducting street outreach focused on overdose prevention in Black neighborhoods. Questions from these focus groups were structured to elicit professional and personal perspectives on drivers of OOD and resources and services needed to address inequities.

Procedures

Interview guides were created using open-ended prompts to explore drivers of OOD among Black PWUD in St. Louis. Focus groups were conducted at local sites recommended by community partners. Before each focus group began, participants were welcomed by the research team, completed informed consent procedures, and collectively agreed upon group expectations. Each focus group lasted approximately 90 min and was audio recorded. Participants were provided snacks and $50 gift cards. To clarify understanding of concepts, one follow-up interview was conducted via Zoom with two participants from the first focus group. A professional agency transcribed audio files verbatim and research staff checked transcriptions for accuracy. Transcriptions were then uploaded to ATLAS.ti (Version 24) for analysis.

Data analysis and reflexivity

Data collected from both studies were examined using an inductive, reflexive approach to thematic analysis, following the six phases outlined by Braun and Clarke [31]. The two coders (authors KDC and DEB) began by reading through transcripts to absorb information, take notes, and list out initial ideas. Next, initial codes were created implicitly focusing on specific research questions and identification of recurring patterns. Initial codes were then refined through collaborative discussions. Aligned with codebook approaches to thematic approach, researchers then created a codebook [32, 33]

Table 1 Study themes and exemplar quotes

Themes	Descriptions	Exemplar Quotes
1. Lack of Access to Congruent Treatment and Services	A lack of culturally congruent, appropriate and/or supportive treatment and service access available in the neighborhood that people live in. May include descriptions of poor service options available in one's neighborhood, needing to leave one's neighborhood in order to receive treatment, and poor treatment by emergency responders.	Y'all think they have been taking these numbers for a long time now and yet in the 63,115, the highest zip code with death rates in the area. And yet they didn't put an inpatient substance use place. (Participant 20, Focus Group 3)
2. Intergenerational and Socioemotional Lack of Mobility	Difficulty in improving one's well-being along with a family's inability to thrive. May include being able to meet basic needs, be psychologically well, and have positive interpersonal bonds and relationships.	They wake up, they see it. They walk out their front door, they see it. They can't get away from it. So if they can't get away from it, they don't know what to do. They feel like there is no way out. Their way out is to utilize drugs, alcohol, different things that are going to minimize, for that time, their reality. But again, they got to come right back to it. (Participant 16, Focus Group 3)
3. Lack of Financial Accountability and Investment from Local Leadership and Government	Community organizations, local government, and other stakeholders spending and funding practices. May include descriptions of misuse or misattributions of funds.	But if you're going to be an organization and say that we're here to help the community, actually do what you say you want to do. Don't give us temporary measures. And I feel like some of these organizations will feed the community temporary, and then turn around and say what they can't do. (Participant 5, Focus Group 1)
4. Loss of Collective Community Responsibility and Engagement	Individuals not having a sense of community cohesion, responsibility, or engagement. May include descriptions of unsupportive community relationships and a lack of recognition for the cultural value in Black communities.	What I've been seeing is a lot of abuse. A lot of folks that's traumatized. I think that's the main thing that I see a lot of folks not opening eyes to what could and what should be, more like my brother's keeper. We forgetting about that. And it's every man for himself, what I been seeing. (Participant 10, Focus Group 2; man, CHW)
5. Building Engagement and Community Cohesion through Grassroots Efforts and Street Outreach	Community and grassroots providing support, distributing resources and tools, and providing education (e.g., about treatment for drug use and services available) directly to Black individuals within the neighborhood. May include discussion of the value and/or importance of these within neighborhood services.	People have come by, have access to shower, laundry, food, and safe space to sleep…also, a chance to talk to a community health advocate if they want to seek treatment. Usually [another participant] and I work together. Whenever he sees people outside, he sends them to us. That's what we offer in terms of substance use…People are able to come get needles, clean needles, get sharp containers and get education on how to recognize an overdose, how to respond to an overdose. (Participant 18, Focus Group 3; woman, outreach program supervisor)

and applied the initial codes through line-by-line coding of all transcripts. KDC subsequently created a coding summary based on review of the data within the framing of the codebook. The two coders then met to review and revise the coding summary to derive themes, ensuring coherence and accuracy among patterns. The final step involved defining and naming the themes to reflect the overarching story derived from data analysis.

The current research and data analysis was based on the research team's lived and professional experiences, which include uplifting harm reduction and social justice, and view racial inequities in overdose and syndemic conditions as a symptom of systemic racism. Although the research team shared these values and certain racial and regional characteristics with participants, we acknowledge that our interpretations are limited as we are not part of the community as directly impacted by overdose. Specifically, the current study was designed and implemented by the first author (KDC), a Black woman and graduate student seeking to specialize in SDOH impacting drug use. The senior author (DEB), who supervised study design and implementation and led the original studies, is a Black woman and licensed clinical psychologist specializing in racial inequities in drug use. RPW, who consulted on study design/implementation and oversaw study approval, is a White woman and scientist-practitioner specializing in opioid use disorder and overdose prevention. MEP and AD, who facilitated focus groups, are White women and public health professionals with experience in behavioral health and substance use research.

Results

Original coding resulted in four themes regarding facets of neighborhood disinvestment that contribute to OOD among Black PWUD in St. Louis: (1) lack of access to congruent treatment and services, (2) intergenerational and socioemotional lack of mobility, (3) lack of financial accountability and investment from local leadership and government, and (4) the loss of collective community responsibility and engagement. Regarding a culturally-grounded strategy to mitigate OOD, we identified a fifth theme: (5) building engagement and community cohesion through grassroots efforts and street outreach. Themes and illustrative quotes are outlined in the following sections and Table 1.

Lack of access to congruent treatment and services

Participants described how neighborhood disinvestment limited access to SUD treatment and related health and social services congruent with the needs of Black PWUD, contributing to OOD by limiting availability to SUD treatment and overdose prevention services. Primarily, participants noted Black PWUD have little to no treatment or services within their own neighborhoods. Instead, they are often forced to receive care outside of their neighborhoods, which requires navigating barriers such as discriminatory treatment, competing responsibilities (e.g., risking job stability, finding reliable childcare), and a lack of physical resources (e.g., travel accommodations). For example:

> *People can get to places but you may have a community that doesn't have that direct bus line. They got to take four and five just to get to one location. So access [to treatment] looks different in each one of these communities, as far as what they have. (Participant 16, Focus Group 3; woman, outreach program coordinator)*

Even when treatments and services exist in Black neighborhoods, they are not relevant or responsive to Black PWUD's needs. Participants reported treatment facilities often do not have funding or space to help everyone and lack resources for families (e.g., room for couples and children). Facilities located in Black neighborhoods were noted to be of poor quality, making it difficult for PWUD to receive adequate care and achieve recovery. For example, participants often discussed how drugs were sold or used in or in close proximity to facilities:

> *How am I going to trust my relative to go inside this treatment facility, and they selling dope inside the treatment facility? I just had a man tell me that, "I don't want to go because you have the people inside that's using inside of the facility, so how do I trust that facility?" (Participant 5, Focus Group 1, woman, street outreach worker)*

In addition, overdose response and other services provided by emergency responders were described as incongruent to the needs of Black PWUD. Despite Black neighborhoods facing disproportionate policing, response times to emergency calls are slow and responders provide unhelpful services in times of crisis. Participants highlighted this as a cause of mistrust in the criminal-legal and emergency systems, which decreases Black PWUD's willingness to call for help and increases their susceptibility to OOD. For instance:

> *We saw it ourselves right across the street during an outreach. Somebody overdosed. We have a doctor, with us physically, right there who's coming over. Five of us running across the street with Narcan. And instead of them letting us take care of him, the police put a line between us, blocked us off, told us not to help him. The only reason this person survived… is one of our participants had already hit him with two doses of Narcan before EMTs got there… If he hadn't, they would've let him die in that ambulance right there, with the police and the EMTs on the scene and a doctor and five other of us with Narcan in our hand to help save his life right there. (Participant 17, Focus Group 3; man, outreach program coordinator)*

Intergenerational and socioemotional lack of mobility

Participants described how neighborhood disinvestment perpetuates an intergenerational cycle of problems for Black individuals and families, making it difficult to access social and health-related resources needed to achieve mental and emotional wellness. This leaves Black individuals and families vulnerable to toxic conditions (e.g., high prevalence of crime, omnipresence of drugs, vacant buildings, and a lack of schools, grocery stores, and healthcare facilities) common in disinvested neighborhoods, contributing to vulnerability for SUD and in turn, OOD. For example, participants brought attention to how most homes in Black neighborhoods are single-parent households, often characterized by inadequate parental monitoring and related trauma (e.g., parental drug use, abuse):

> *A lot of those areas do not have two-parent homes, as far as the kids. I had a couple of relatives who have died from fentanyl overdose. So when I say leaving behind children, it's even more disheartening because now you got the kids looking at the mother nodding off [from opioid intoxication]. (Participant 5, Focus Group 1)*

Participants described that youth often seek to evade the home in these situations. However, due to neighborhood disinvestment, supportive environments providing adaptive activities are absent or inaccessible. Youth instead may find a supportive environment in street-based economies, where they get involved with the drug trade to meet needs that are unmet at home. This cycle was exemplified by the following personal narrative from a CHW:

> *My momma been getting high since as long as I can remember, that's all I know. I don't know nothing else. So I remember being young and being like, "I don't even want to go home."…So it was like, I don't even want to go to the crib, I want to be somewhere*

else. So the neighborhood became my support system. They also became my parents. You know what I mean? They taught me how to think without trying to teach me how to think. Drug dealers didn't come like, "Hey, I just want to put you on a block and make you do bad." Honestly, it really started from, "I see you ain't got nothing." (Participant 11, Focus Group 2; man, CHW)

In this and other ways, conditions of neighborhood disinvestment lead to a lack of social and physical mobility for youth and families. Black youth are socialized to feel stuck in their current conditions, which perpetuates a cycle of hopelessness and trauma. A lack of resources, adaptive relationships, and activities, coupled with violence and a lack of safety, lead younger individuals to find relationships and resources in activities characterized by violence, crime, and drug use.

Lack of financial accountability and investment from local leadership and government

Neighborhood disinvestment contributes to OOD through a lack of accountability from policy makers, government officials, and local service organizations, which restricts opportunities to improve the built environment, provide adequate treatment and services, and decrease crime, the drug trade, and their negative effects. In particular, participants brought attention to the seemingly purposeful underdevelopment and diminishing of Black neighborhoods' built environment. Despite money granted to the city to address persistent poverty and neighborhood disinvestment, and assurances of financial investment made by policy makers and government officials, Black neighborhoods are left desolate and underfunded, contributing to resource deprivation that perpetuates drug use and OOD:

Where's the money that's supposed to be put back into the city the way it's supposed to be put back in the city. There is none. So, guess what you're going to get? You're going to get more unhoused. You're going to get more people asking for a job. You're going to get more people when it comes to substance abuse and mental health. You're going to get a lot more people out here doing domestics, having shootouts, being into it with people. (Participant 5, Focus Group 1)

Funding accountability was not limited to policy makers and government officials, but also service organizations. Participants discussed how service organizations often receive grants to serve Black neighborhoods, yet Black PWUD continue to be denied help due to a lack of funding or capacity at these organizations:

And don't say you a facility that you're here to help the community, and the stuff that you're providing in the community is a shortage, or you only do it with certain people, or quote unquote- "We ran out of money," or, "We don't have it." But we just saw on the news that you just got a $750,000.00 check and where the money at? (Participant 5, Focus Group 1)

Taken together, Black neighborhoods are unable to gain access to certain opportunities without financial accountability and funding from service organizations, local policy makers and government officials. However, participants also highlighted how these groups see the prevalence of crime, forced omnipresence of drugs, and its related negative effects as a reason not to invest in Black neighborhoods, leading to a paradoxical cycle of disinvestment whereby a lack of resources maintain conditions that are used to further deny resources.

Loss of collective community responsibility and engagement

Among participants, neighborhood disinvestment was described as contributing to OOD by hindering community responsibility and engagement. They highlighted how a lack of community cohesion and collective action fosters an environment that fails to address OOD, its drivers, and related consequences impacting the community. In particular, participants shared it was difficult to get Black individuals to acknowledge toxic conditions in the neighborhood because they have become desensitized, making them less compassionate towards others in their community as demonstrated by this exchange in Focus Group 3:

Participant 16: People…they just not as curious anymore. And it is because it's, "I don't want to deal with it. I don't want to deal with it. Out of sight, out of mind. It's not my problem." But it's in your community so it is your problem.
Participant 20 (man, SUD treatment outreach coordinator): It's all our problem.
Participant 16: So I mean it's almost like you got to force people to, "Hey look at this. Okay, this is in your community.".
Participant 19 (man, SUD treatment outreach coordinator): We used to have neighborhoods, now we got hoods.
Participant 15 (woman, drop-in center director): No neighbors.

The lack of community care and compassion was related to perceiving issues in the community as individual problems, rather than collective problems, furthering attitudes of punishment, stigma, and dehumanization of

Black PWUD. In particular, participants noted this lack of collective responsibility as a hindrance to the Black community's ability to unite and effectively address the pernicious effects of drug use and OOD within their communities:

> *We went back there [an apartment building] to try to educate some people, right? And it was this one individual that was speaking up, and they gave her that look. It's like a lot of them know what's going on, but they don't want to say nothing. But, you had one person that had the courage to say something, but she was the bad [guy]. (Participant 21, Focus Group 3; man, SUD treatment outreach coordinator)*

Although some individuals recognize the opioid overdose crisis and its impact on the Black community, their choice to ignore or disengage undermines existing and burgeoning culturally responsive efforts to combat the opioid overdose crisis within Black communities. This tension between broad apathy and individual efforts also illustrates how neighborhood disinvestment has weakened the social fabric within the Black community by eroding communal values.

Building engagement and community cohesion through grassroot efforts and street outreach

Across focus groups, the theme of building engagement and community cohesion through grassroots efforts and street outreach was identified as a culturally-grounded strategy to mitigate OOD. In particular, a smaller movement of Black people (e.g., CHWs, peer specialists, volunteers, and others in the recovery community with lived experience), recognize the importance of finding support and strength within the Black community *despite disinvestment*, by engaging in collective action based on shared experiences of oppression. Given their cultural congruence–either through shared experiences with addiction and recovery or deep roots within these disinvested Black communities–these individuals can provide invaluable support to Black PWUD by generating trust. This is illustrated by an exchange between two women CHWs in Focus Group 2:

> *Participant 12: [As a client,] You know that we've probably been through or seen what you've been through. We know. We can relate to you. We can adapt. We're there. Yeah, so I think that's a huge part in that trust.*
> *Participant 13: I think part of that, too, is not always going in as the professional. Going in as: "I'm a part of your team, because I'm not only here to help you recognize some things, but you're going to teach me too. You're the professional on this life. I'm here to learn." And when you do that, you can earn their trust and then there we go, we got this partnership going. We can elevate together.*

Having faced similar experiences growing up and living in disinvested Black neighborhoods, these peers, CHWs, and other lay health advocates possess a deep understanding of the psychosocial challenges faced by Black PWUD. Thus, they described a unique ability to offer support and instill a sense of hope in spite of inadequate social and resource capital due to aspects of neighborhood disinvestment. This shared understanding between provider and client was emphasized as a need and strategy to combat the lack of collective responsibility and to approach overdose prevention within Black communities.

Participants described how they often go beyond the requirements of their job roles, risking their own safety (e.g., exposure to gun violence) to advocate for Black PWUD. This advocacy included providing social support, including listening without judgment, encouraging strategies to reduce harm and increase well-being, and teaching new skills. It also included creating safe and often Black-led spaces that provide whole person care more congruent to the needs of Black PWUD (e.g., overdose prevention, wound care, counseling). Participants also discussed how they help clients navigate neighborhood disinvestment and associated discrimination. For instance, one participant said:

> *We teach you what to say to not get the police involved. We tell people to say that, "I have a person that's unresponsive here." We don't even talk about what it might be. We just know we have somebody that's unresponsive, and let them, then, dictate how they want to handle that. The minute you say, "Overdose," the police first, all the time. We actually teach that at our training, to say that "There is someone here that's unresponsive"... So, we have to have strategies just to get the appropriate help in our communities. (Participant 17, Focus Group 3)*

To redress the loss of collective community responsibility and engagement, grassroots organizations and outreaching individuals are building a sense of community ownership and responsibility in addressing the opioid overdose crisis in Black neighborhoods. As participants emphasized, their efforts enhance visibility in the community and strengthen initiatives to deliver culturally congruent care in the face of neighborhood disinvestment while providing practical services (e.g., naloxone distribution) that reduce OOD.

Discussion

The current study assessed aspects of neighborhood disinvestment impacting OOD among Black PWUD, drawing insights from those who represent and serve predominantly Black communities in St. Louis, Missouri. The resulting thematic analysis indicates four themes contributing to OOD: (1) a lack of access to congruent treatment and services, (2) intergenerational and socioemotional lack of mobility, (3) lack of financial accountability and investment from local leadership and government, and (4) the loss of collective community responsibility and engagement. However, analysis also revealed a fifth theme regarding neighborhood strategies for mitigating OOD: (5) building engagement and community cohesion through grassroots efforts and street outreach. Although existing literature highlights the association between facets of neighborhood disinvestment and OOD among Black PWUD [11, 25], our findings offer a more nuanced exploration of the specific aspects of neighborhood disinvestment driving OOD among Black PWUD based on the expertise of those working and living in disinvested neighborhoods. Drawing on established community partnerships, this community-engaged research approach highlights the valuable efforts and insights of community members actively engaged in efforts to redress the opioid overdose crisis.

Access, mobility, and social capital

The model for Black social capital and social mobility [34] posits that systemic racism works through structures that support or restrict access to determinants of health. This is a useful framework for understanding the interconnected nature of social capital, restricted access to resources and a lack of opportunities to achieve intergenerational and socioemotional mobility (Theme 2), and how they relate to increases in OOD among Black PWUD. In line with the literature, participants indicated a lack of access to resources and adaptive activities socialize youth and their families to feel stuck and hopeless about the conditions into which they are forced [35, 36], perpetuating a cycle of hopelessness and trauma. They noted how the withdrawal of investment in Black neighborhoods contributes to a cycle of disproportionate single parent households and early exposures to drug use, aligning with previous research [37–40]. In turn, Black youth turn to the streets for forms of support (e.g., familial and financial), increasing their risk for involvement in drug use and the drug trade. As this cycle continues, Black youth and their families continue to have low social capital and limited mobility, which increase adversity and impede their ability to access health resources, increasing vulnerability to SUD and OOD.

Financial accountability and incongruent access

Participants in the current study emphasized how a lack of financial accountability and investment from local leadership and government (Theme 3), impacts rising rates of OOD in Black communities. This is a finding not thoroughly explored in existing literature. For example, federal opioid grant funding has traditionally favored states with smaller populations rather than those with the greatest needs [41], emphasizing the importance of ensuring accountability through methods that tie funding allocations to specific objectives and outcomes. This links a lack of financial accountability (i.e., federal fund misallocation) to resultant inequities in addressing the opioid overdose crisis (i.e., the likelihood areas truly in need will receive funding) [41]. Findings from this study contribute to the existing literature by illustrating that issues of funding and access in Black neighborhoods stem not only from inadequate financial support and accountability from policymakers and government officials, but also from mishandling of funds by community organizations tasked with aiding Black PWUD.

Thus, findings revealed a notable overlap between a lack of financial accountability and investment from local leadership and government, and a lack of access to congruent treatment and services (Themes 3 and 1). Congruence between these two themes echo previous research [42–44], as participants suggest a lack of financial accountability may heighten susceptibility to neighborhood crime and the infiltration of drugs throughout the neighborhood, including into essential community service facilities. Even if service facilities are safe and drug-free, Black PWUD would struggle to access services due to the scarcity of treatment programs in Black neighborhoods and limited service capacity in those that were present. Although previous research has emphasized the urgent need for improved access to SUD treatment services for Black PWUD [6], the current study extends this understanding by highlighting how inadequate financial accountability and limited access to appropriate treatment and services are interconnected issues driven by neighborhood disinvestment. These themes' complex interplay underscores their persistent impact on inequities in care and treatment, suggesting simply improving geographical access and increasing service capacity is insufficient.

Leveraging cultural strengths through community champions

Findings from the current study revealed that neighborhood disinvestment has driven a loss of collective community responsibility and engagement (Theme 4) that prevents Black communities from effectively redressing drivers of OOD inequities. Although this study is one of the first to describe the importance of social cohesion in

the context of overdose disparities, previous literature has linked social cohesion and vulnerability to drug use in the context of neighborhood disinvestment. For instance, Ford and colleagues [45] demonstrated how neighborhood characteristics, including high social disorganization and low social capital were related to prescription drug misuse among adolescents. Despite this, the explicit nature of these issues–such as how diminished trust or apathy manifest–and their impact on community responsibility and engagement remains unclear. The current study expands the current literature by illustrating how neighborhood disinvestment has fractured Black communities in ways that remain poorly understood, particularly concerning the community's lack of ability to collectively address rates of OOD among Black PWUD.

On the other hand, participants suggest grassroots organizations and individuals engaged in street outreach (Theme 5) are actively addressing this fracture by fostering community responsibility and engagement. This highlights a significant overlap among loss of collective community responsibility and engagement (Theme 4), building engagement and community cohesion through grassroots efforts and street outreach (Theme 5), and lack of access to congruent treatment and services (Theme 1). Consistent with prior research [46, 47, 48], participants emphasized the importance of their job roles in building meaningful relationships, connecting PWUD to essential treatment/services, and offering culturally congruent support, particularly with Black PWUD [49–52]. Similar approaches have been illustrated in the literature, demonstrating how peer recovery coaches and community leaders are also collectively supporting and expanding access to services for Black PWUD within their communities [48, 52]. Harm reduction strategies, such as those implemented by Bmore POWER (a peer- and street-based naloxone distribution program), are effective in providing support to Black PWUD and fostering a sense of community responsibility in Baltimore's Black communities [51]. The current study builds upon existing research by also demonstrating that individual community champions with lived experience are uniquely poised to address and counteract the negative effects of neighborhood disinvestment, as Black individuals from Black neighborhoods, by supplementing the loss of collective community responsibility and engagement.

Policy and practice implications

This study affirms the need to enhance intergenerational and socio-emotional mobility for Black individuals and families. Policy makers, government officials, and local service organizations should implement programs directly within predominantly Black affordable and public housing settings to teach advocacy skills, financial literacy, and instill self-efficacy and competence. Organizations like Partnership for Children and Youth exemplify this approach by providing equitable after school programs directly within affordable and public housing settings, with populations furthest from opportunity [53]. Implementation of similar programs in predominantly Black neighborhoods, with an added focus on drug education and curriculum, are vital in enhancing mobility and mitigating negative drug-related outcomes among Black youth and interrupting the intergenerational cycle of trauma and substance use described by participants.

It is also critical to redress the persistent effects of systemic racism on the racial wealth gap [54], which serves to limit financial literacy and management capabilities among Black-led, nonprofit organizations. Due to racist policies and practices [54, 55], compounded with complex and restrictive funding mechanisms, Black-led organizations may face even greater difficulties in gaining the ability to manage funds effectively. Funders should consider allocating funding specifically for educational training in financial management for Black-led organizations. This training should focus on best practices for enhancing transparency in management decisions, and how to best improve oversight of spending decisions [56].

Finally, study findings suggest it is critical for Black neighborhoods to strengthen community engagement and responsibility. Several useful approaches include the implementation of culturally-tailored interventions aimed at reducing stigma and raising critical consciousness within the broader Black community. As the literature highlights, such culturally responsive approaches can help community members gain a broader understanding of problems and potential solutions related to the opioid overdose crisis in their communities, foster greater empathy and a sense of community, enhance an individuals' ability to access community resources more effectively, and work alongside fellow community members to organize solutions to structural barriers [57–60]. Collectively, this increased understanding, empathy, access to resources, and social capital work to reduce feelings of "otherness" that are so deeply embedded in both drug user stigma and racism, highlighting how grassroots organizations and street outreach programs, such as those sampled in the current study, are particularly powerful when working within Black and other marginalized communities.

Limitations

The current study was community-engaged, which strengthened the design and data collection but also meant that researchers had established professional relationships with some participants. This may have led to biased focus group discussions that favored the perspectives of more closely-known participants. The small

community of grassroots organizations and outreaching individuals in the St. Louis region also means some participants knew each other from professional settings. This may have limited participants' willingness to share insights due to concerns of confidentiality or previous relationship dynamics or otherwise shaped and directed the conversation. The study was limited to the perspectives of individuals who represent and serve predominantly Black communities, but may or may not represent the perspectives of PWUD themselves. Lastly, although racialized neighborhood disinvestment affecting Black communities is common in urban cities and a documented driver of inequities in OOD [11, 61], the current study findings have limited transferability to Black PWUD in dissimilar or highly racially integrated geographic regions given the study context of St. Louis, MO.

Conclusions

The current study identified specific neighborhood factors that contribute to and protect against the risk of OOD among Black PWUD. Future work should build on these findings by identifying more effective community-driven solutions to address rising rates of OOD in Black neighborhoods. Interventions aimed at enhancing cultural congruence while fostering community cohesion should be developed with the input of PWUD and implemented directly within predominantly Black neighborhoods to effectively mitigate rising rates of OOD in this population.

Abbreviations

OOD	Opioid overdose deaths
SDOH	Social determinants of health
SUD	Substance use disorder
PWUD	People who use drugs
CHWs	Community health workers

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Author contributions

KDC and DEB contributed to the design, implementation, and analysis of the results. RPW consulted on study design/implementation. DEB and RPW oversaw study approval. MEP and AD contributed to study design and data collection. All authors contributed to the writing, review, and approval of the manuscript.

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Data availability

The data generated and analyzed during the current study are not publicly available as they cannot reasonably be shared without compromising the privacy and confidentiality of participants. However, certain sections of the data are available from the corresponding author upon reasonable request.

Declarations

Ethics approval and consent to participate

The research procedures reported in this article were approved by the Institutional Review Board at the University of Missouri—St. Louis (Projects #2052586 and #2073022). All participants provided written informed consent.

Consent for publication

Not applicable.

Competing interests

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