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What's race got to do with it? Factors contributing to self-change from cocaine use disorder among Black adults

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ABSTRACT

Introduction: A substantial number of people with substance use disorders recover without formal treatment, though we know little about the process of self-change among Black adults with cocaine use disorder (CUD) and whether racism contributes to the development of CUD and these adults' process of self-change.

Methods: The study team conducted qualitative interviews with 29 Black adults using a narrative and phenomenological approach. At the time of the interview, all participants met criteria for DSM-5 CUD prior to the past year but did not meet criteria for CUD in the past year and reported that they reduced their cocaine use without formal treatment. Participants completed a qualitative interview followed by the UConn Racial/Ethnic Stress & Trauma Survey. Thematic analyses informed key themes from the qualitative interviews.

Results: Qualitative analyses indicated several major factors that contributed to self-change from CUD: racial identity, responsibility to family, social regard, spirituality, turning point for change, and changing one's environment. These results highlight that self-change from CUD is a complex, ongoing, and multifaceted process. The identified themes align with several theories of recovery, including social control theory and the theory of stress and coping. Furthermore, the results suggest that experiences of racism are common among Black adults recovering from CUD, and that the multiple strategies employed for coping with racism may be consistent with the process of self-change.

Conclusions: This study shows that multiple race-related factors contribute to the development of, maintenance of, and self-change from CUD among Black adults. Better understanding these factors can help to inform drug treatment.

1. Introduction

Cocaine use has historically and continues today to have a devastating and disproportionate impact on Black communities, resulting in mass incarceration, family disruption, and increased mortality (Hendricks & Wilson, 2013). Although the opioid epidemic has been mostly considered a problem among White people, Black people have been disproportionately impacted as well largely through their use of stimulants including cocaine. Data from the Centers on Disease Control indicate that Black people experienced the largest change (25 %) in opioid-involved overdose deaths relative to other racial/ethnic groups, partially due to fentanyl contamination of cocaine (Achenbach, 2019; Shiels et al., 2018). Though rates of treatment-seeking for substance use disorders (SUDs) in the United States are comparably low across racial and ethnic groups (Blanco et al., 2015; Haeny et al., 2021), less than a quarter of Black adults with SUDs receive treatment at any point in their lifetime (Haeny et al., 2021) and some evidence suggests that treatment admissions have decreased among Black adults (Zapolski et al., 2014). Thus, it is important to examine culturally and socially specific barriers to treatment among Black adults to best inform prevention and intervention efforts. Given that Black people are more likely to experience racism relative to other racial and ethnic groups (see, e.g., Clark et al., 1999; Harrell, 2000; Holmes, 2020), racism may contribute to reduced treatment-seeking among Black adults with SUD. Additionally, Black

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adults who do present for treatment may find that the approaches are not culturally responsive, and thus may be more likely to drop out or find treatment unhelpful (Gilbert & Zemore, 2016; Shavers & Shavers, 2006; Zemore et al., 2018). These troubling data highlight an urgent need for efforts to help Black people with cocaine use disorder (CUD) recover.

Given the low rates of treatment-seeking among Black adults, we must think about how to improve outcomes among Black adults who may choose not to engage in formal treatment for SUD. Research suggests that many individuals with SUD recover without formal treatment, a process known as natural recovery, spontaneous remission, or self-change (Carballo et al., 2007; Klingemann et al., 2010; Mocenni et al., 2019; Sobell et al., 2000; Spinelli & Thyer, 2017; Watson & Sher, 1998). The current study uses the term "self-change" to center the process that individuals undergo in quitting or reducing their substance use. Reviews of the self-change literature inform the top reasons for change, as well as factors that help to maintain change over time. Top reasons for initiating self-change have included family, health, and finances (Carballo et al., 2007; Klingemann et al., 2010; Watson & Sher, 1998; Witbrodt et al., 2015). Top factors that contributed to maintaining change have included social support, family, and avoiding situations that involve substance use (Carballo et al., 2007; Klingemann et al., 2010; Watson & Sher, 1998). However, much of the research on self-change occurs among predominately White samples, so the process of self-change among Black people remains unclear.

Evidence indicates that racial discrimination contributes to substance use and problems among Black people (Gibbons et al., 2012) and may be an important factor in the process of self-change; however, no studies in the self-change literature examine the effects of racism. Further, prior research suggests that Black people are more likely to report structural barriers to treatment (e.g., financial cost), whereas White people are more likely to report attitudinal barriers to treatment (e.g., does not believe treatment will help; Verissimo & Grella, 2017), highlighting that these reasons for not seeking treatment and instead engaging in self-change might also differ between Black and White people. Understanding the process of self-change among Black individuals can inform strategies for promoting recovery in the Black community. Moreover, understanding self-change may lead to identifying methods for enhancing existing treatment programs for Black individuals with SUD.

Multiple theories identify personal and social resources that contribute to the process of recovery from SUDs (Werner et al., 2016). For example, social control theory (Moos, 2007) suggests strong bonds with traditional society (e.g., family, friends, religion) contribute to recovery from SUD. The theory of stress and coping (Kaplan, 1996) posits that recovery from SUD involves identifying stressors that trigger urges to use, building self-efficacy, and developing coping skills that contribute to the process of recovery. Though empirical work has supported these theories, limited research exists that examines how these factors contribute to recovery among Black adults specifically. Minority stress models indicate that individuals with marginalized identities, including Black people, experience more stress due to their marginalized identities (e.g., internalized racial oppression, discrimination) (Clark et al., 1999; Harrell, 2000). Some research suggests that individuals with marginalized identities may be more susceptible to the negative impact of stressors on substance misuse due to limited resources for coping (Kessler et al., 1999; Russell et al., 1999). Others argue that the difference in the nature of stressors (e.g., discrimination), their higher frequency, and/or their intensity are what leads to a greater negative impact of stress on substance misuse among individuals with marginalized identities (Otiniano Verissimo et al., 2014). Thus, the characteristics of stressors associated with maintaining CUD may differ among Black people compared to other groups. Investigating self-change among Black adults may result in the identification of stressors specific to individuals with marginalized identities (e.g., racial discrimination) that contribute to initiating and maintaining cocaine misuse. Furthermore, exploring how Black adults cope with these triggers once they have recovered from their CUD could improve existing CUD treatment programs for Black adults. Therefore, the current study used qualitative interviews to identify factors contributing to self-change from problem cocaine use among Black adults who reported that they changed their cocaine use without formal treatment. The current study also aimed to identify whether racism contributed to the development of cocaine use problems and the process of self-change.

2. Methods

2.1. Study description

The current study uses data from the Self-Change Study, a qualitative study of Black adults who recovered from CUD without formal treatment. Following approval from the Yale School of Medicine IRB, researchers completed targeted recruitment using flyers in highly populated areas and social media (e.g., Facebook, Instagram). In addition, researchers invited recruited participants to identify acquaintances who might also be eligible for the study (i.e., the snowball technique). Researchers intentionally targeted advertisements to locations highly populated by Black people and hired two Black males with past lived experience of SUD who helped to spread the word about the study in the Black community. The study team recruited most participants using the latter approach.

A trained undergraduate-level research assistant (RA) screened potential participants by phone to ensure that they met the inclusion criteria: 1) at least 18 years of age, 2) identify as Black or African American 3) met criteria for prior-to-past-year DSM-5 CUD but did not meet for past-year CUD, and 4) reported that they self-changed their CUD without formal treatment. To assess formal treatment history, the RA asked each potential participant if they had ever sought treatment for any substance use problem. If they said yes, the RA inquired as to when and what treatment had taken place. The study classified participants as self-changed if they reported they achieved abstinence or reduced to nonproblematic cocaine use and denied having ever been hospitalized or treated as an outpatient for a substance problem, or if they had sought treatment in the past but did not attribute their recovery to treatment (e.g., they went to treatment at age 30 but recovered without treatment at age 35). No one reported seeking help from clergy or other lay professionals but some participants reported engaging in more religious activities (bible study, church choir, prayer, reading the bible, attending religious services) to help them quit. Participants in the latter group had to report at least a year between the time they attended treatment and self-changed from CUD.

2.2. Procedures

Eligible participants completed a 3-h meeting with the senior author (AMH). The senior author audio-recorded these meetings via a HIPAA-compliant version of the Zoom videoconferencing platform (Zoom Communications, 2021) due to the COVID-19 pandemic. Each meeting began with consent, followed by the qualitative interview, a semi-structured interview on racial stress and trauma, and a brief survey to collect additional contextual information on their process of self-change. Researchers offered all participants a list of resources and the link to the Black Lives Matter Meditation (Hargons, 2022) in the event the interviews were triggering. The senior author conducted interviews between January and October 2021. Participants received $75 for their time. Participants received an invitation for a follow-up meeting over Zoom in June 2022 to provide feedback on the findings (Creswell & Miller, 2000; Hill et al., 2005). Of the 29 participants who the senior author interviewed, the RA contacted 28 (1 had a phone that was no longer in service). Though the RA made multiple efforts to include all 28 participants in the feedback session, only 6 participated, with the remaining participants either not responding in time or having

scheduling conflicts. Participants received $20 for attending the feedback session.

2.3. Measures

2.3.1. Self-change interview

The senior author (AMH) conducted interviews using a narrative-phenomenological approach (Davidson, 2003), which seeks to highlight individuals' lived experiences of a phenomenon, such as self-change, through the collection of extensive narrative data from a small number of participants, thus generating a deeper understanding of the core features of the phenomenon of interest (Patton, 2015). This approach involved asking the participant to tell their recovery story from the beginning up to now, starting wherever they wanted and including whatever they wanted. After this statement, the interviewer used reflective listening techniques in response to information shared by the participant about their self-change process. If the participant did not describe their onset of CUD, initiation of change, or how change was maintained, then the interviewer probed for this information. Once the participant finished sharing their story, the interviewer asked which elements the participant felt were most important in their process and maintenance of self-change. If the participant did not spontaneously describe the role (if any) of sociocultural factors including racism, spirituality, social supports, and coping strategies in their process of self-change, then the interviewer probed for this information. The interviewer encouraged all participants to tell their stories in their own words. Prior to the interview process, community partners with lived experience with past CUD vetted the interview guide questions.

2.3.2. UConn Race and Ethnic Stress and Trauma Survey (UnRESTS)

The UnRESTS (Williams et al., 2018) is a semi-structured interview that assesses ethnoracial identity development and personal experiences of overt racism, vicarious racism (experienced by loved ones and people they did not know personally), and racial microaggressions. In addition to the interview questions, the UnRESTS includes a racial/ethnic identity scale that assesses how important and salient race is to one's identity and provides a score ranging from 0 to 12, with scores of 0–3 considered *low*, 4–8 *average*, and 9–12 *high*.

2.3.3. Contextual characteristics

All participants self-reported demographic characteristics (age, sex, race, ethnicity, social class). As part of the survey, participants also answered questions about the time course of their problem use and completed the 20-item Drug Process of Change questionnaire (Prochaska et al., 1988), for which participants answered on a 5-point scale (1 = never, 5 = repeatedly) how frequently they made use of a particular situation or thought in order to not use cocaine during their process of self-change. The questionnaire has two major subscales. The experiential subscale captures psychological processes that can aid in self-change, such as thinking about how past use has affected others and seeking out information about the effects of use. The behavioral subscale comprises specific and observable self-change behaviors such as rewarding oneself for not using cocaine and seeking social support. Possible scores on each subscale range from 1 to 5 with higher scores meaning more frequent use of either experiential or behavioral change processes.

2.4. Analytic strategy

Initial interview transcription took place using NVIVO (QSR International Pty Ltd, 2020). An undergraduate RA and a graduate RA reviewed the NVIVO transcripts and corrected if necessary, and the interviewer noted all responses to the UnRESTS. A 6-person multiethnic research team of undergraduate, master's, and doctoral-level investigators analyzed the data. Following the methods outlined by Sells et al. (2004), each investigator independently read the transcripts, identified themes related to being Black and self-change, and wrote a narrative summary in the first-person using only the participants' words to highlight the meaning participants made of their self-change process. The narrative summaries were one page or fewer and highlighted the themes from the interview in temporal order. The research team met and shared their summaries and justification for the themes identified while noting differences between the summaries. The research team uploaded their one page summaries to Dedoose Version 9.0.46 (SocioCultural Research Consultants LLC, 2022), where each member of the research team went through each narrative to identify themes. The team met on several occasions to build unanimous consensus on which themes were most salient across the sample.

Data analysis for the UnRESTS followed the tenets of thematic analysis (Braun & Clarke, 2006). Researchers looked at responses to individual questions across a subset of participants to identify emergent recurring themes and to develop a codebook, and all of the UnRESTS responses were coded accordingly. Three coders were trained so that the study established acceptable (greater than 0.85) levels of inter-rater reliability.

3. Results

3.1. Sample characteristics

The final sample consisted of 29 Black-identified adults. Table 1 shows descriptive information about the sample. The sample was 62.07 % ($n = 18$) cisgender female, 34.48 % ($n = 10$) cisgender male, and 3.49 % ($n = 1$) genderfluid female. The mean age was 58.21 years (SD = 5.27 years, range 50–65 years). The mean score of the racial identity measure was 9.66 (SD = 1.98, range 0–12), indicating that on average,

Table 1
Sample characteristics.

	Full Sample (N = 29)
Gender Identity	
Cisgender Female (*n*, %)	18, 62.07 %
Cisgender Male (*n*, %)	10, 34.48 %
Genderfluid Female (*n*, %)	1, 3.49 %
Sexual Orientation	
Heterosexual (*n*, %)	19, 65.52 %
Gay or Lesbian (*n*, %)	6, 20.69 %
Bisexual (*n*, %)	2, 6.90 %
Asexual (*n*, %)	2, 6.90 %
Age (M [SD])	58.21 (5.27)
Racial Identity Score (M [SD])	9.66 (1.98)
Annual Household Income	
$25,000 or less (*n*, %)	18, 62.07 %
$25,001 - $50,000 (*n*, %)	7, 24.14 %
Greater than $50,000 (*n*, %)	4, 13.79 %
Children	
At least one child (*n*, %)	24, 82.76 %
No children (*n*, %)	5, 17.24 %
To what extent do you consider yourself a spiritual person?	
Slightly Spiritual (*n*, %)	1, 3.49 %
Moderately Spiritual (*n*, %)	7, 24.14 %
Very Spiritual (*n*, %)	21, 72.41 %
Self- Change Context Variables	
Age at first cocaine use, years (M [SD])	22.24 (6.43)
Age when problematic cocaine use began, years (M [SD])	29.13 (9.89)
Age when decided to quit using cocaine or reduce (M [SD])	42.31 (11.96)
Time abstinent or in non-problematic use, years (M [SD])	13.38 (10.13)
Sought treatment for cocaine use disorder (*n*, %)	9, 31.03 %
Used cocaine in the past 30 days (*n*, %)	1, 3.49 %
Process of Change: Experiential subscale (M [SD])	3.17 (1.36)
Process of Change: Behavioral subscale (M [SD])	3.61 (1.31)
Experiences of Racism in Healthcare	
Ever experienced discrimination in ability to obtain health care (*n*, %)	18, 62.1 %
Ever experienced discrimination in treatment when receiving care (*n*, %)	18, 62.1 %

participants found their racial identity to be highly salient. Over 80 % of participants (n = 24) had at least one child. All participants endorsed some level of spirituality, with 72.41 % (n = 21) reporting being very spiritual, 24.14 % (n = 8) being moderately spiritual, and 3.49 % (n = 1) slightly spiritual. The primary language for all participants was English.

The average time abstinent or engaged in non–problem cocaine use was 13.38 years (SD = 10.13 years, range 1.5–34 years). About 31 % (n = 9) of participants had sought treatment for CUD, though in line with recruitment goals, none of these participants attributed their self-change to treatment and there was at least a year gap between when they attended treatment and self-changed from CUD. Only one participant endorsed non–problem cocaine use in the past thirty days, defined as using no more than 1–4 times per month (Roos et al., 2019). The mean score on the Process of Change questionnaire (Prochaska et al., 1988) was 3.17 (SD = 1.36) for the experiential subscale and 3.61 (SD = 1.31) for the behavioral subscale. Thus, participants were engaging in overt and covert change-promoting activities at least occasionally during their process of self-change. Sixty-two percent of participants (n = 18) reported experiencing racial discrimination in their ability to obtain health care at some point in their lifetime, and 62.1 % (n = 18) reported experiencing racial discrimination while receiving care at some point in their lifetime.

3.2. Themes from self-change interview

While the focus of the current study was the self-change process, several themes related to the beginning of cocaine use and maintenance of self-change emerged and are briefly summarized as well (Fig. 1).

3.2.1. Beginning of use

Participants identified several *external* factors that contributed to initiation of cocaine use. Participants often stated that use began with *friends*, *partners*, or *in group settings* such as parties or clubs. For example, one participant attributed their use to "getting mixed up with the wrong crowd and doing different things" (genderqueer female, 51–55 years old). Use initiation was connected to a *desire to fit in* or *be a part of a crowd*: "Pretty much I'm a follower…I had went to this party one night, because I was selling them drugs while I was in there. So I'm looking at everybody, you know, everybody doing it, so I'm like, let me try" (cisgender female, 56–60 years old). One participant described the desire to belong in the following: "Yeah, and when you just feel like unloved and unwanted. And you're like looking for love in all the wrong places, you know, just trying to fit in, trying to be a part of something, you know. And you just don't, you know, you try to be a part of anything, you know. And so that's where my cocaine use started" (cisgender female, 51–55 years old). In addition to social settings, participants highlighted the *broader social context* in which they were living, both time period as well as neighborhood: "The beginning was in 1986. Where I lived in the projects, everybody was selling [cocaine] or doing it" (cisgender female, 61–65 years old). *Inability to escape one's environment* was cited as something that kept people locked into their addiction: "I had no place to go and nothing like that. I was still running into the same people all the time, hanging around them, and sometimes they would smoke" (cisgender male, 61–65 years old).

In addition to these external factors, participants identified *internal* mechanisms of initiation. One common internal catalyst for use initiation was the *pain and distress caused by life experiences and one's environment*: "Life was my triggers. First of all, the environment that I come from, and secondly, the environment that I worked in…Once I started doing drugs, you know, it kept me from thinking about a lot of that type of stuff, which I don't care to mention" (cisgender male, 61–65 years old). Overall, participants described their transition from use initiation to problem use as a *gradual process*, as opposed to being instantly hooked or addicted: "I decided just to do a one on one, a sniff up each nostril. [Did that] for a few weeks, or a month or two. Then I was taking a little more, maybe a three on three or four on four then next thing you know, I was in the club. And gradually over the two years of sniffin', I was letting drug dealers in to cook up" (cisgender female, 61–65 years old).

3.2.2. Self-change

3.2.2.1. "I don't want my daughters to be a stereotype". Three specific subthemes emerged concerning the *role of race in the self-change process*. For one, a primary motivator for self-change was to *combat harmful racial stereotypes about Black people*. This could be to serve as a family role model: "[But] I've got a son now, so I'm like, I [don't] want my son to be a stereotype. I don't want my daughters to be a stereotype. But our skin is Black and as you can tell, we're dark skin Black, so the world says we're the worst kind. But it's not so" (cisgender female, 56–60 years old). This could also be in the context of relationships with non-Black people: "My lady is Caucasian and the last thing I wanted was to be associated with that, especially with all the stereotypes that are associated with Black males" (cisgender male, 56–60 years old). Additionally, participants saw change as a *necessary process to succeed in a world where Black people are*

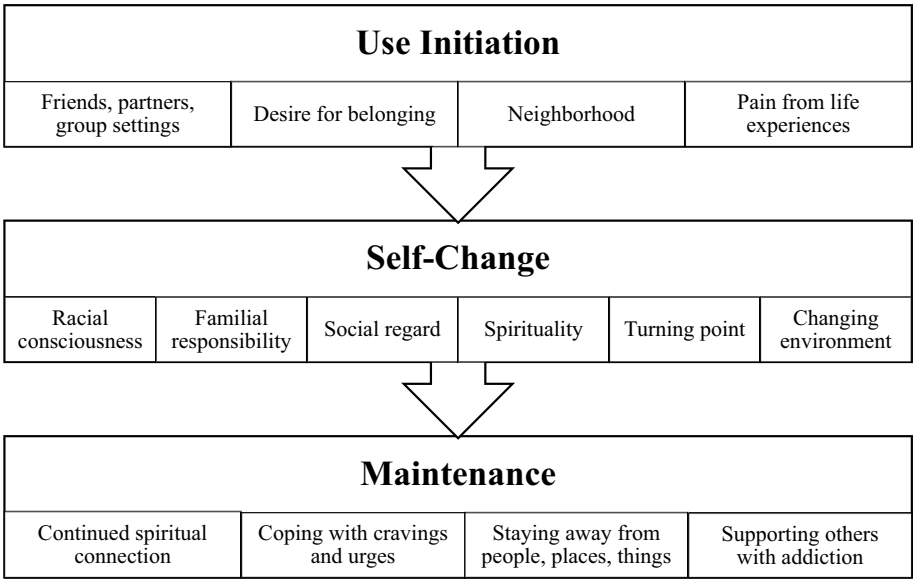

Fig. 1. Themes identified related to initiation of cocaine use, self-change from cocaine use disorder, and maintenance of change from cocaine (N = 29).

at a disadvantage: "You can't go out there like other people [because the] majority where you're getting the job is going to be white, that hire you" (cisgender male, 56–60 years old). Participants made connections between self-change and *racial liberation and freedom from oppression*: "I really equate that freedom and liberation is definitely tied to not using. Picking that up is like putting the chains back on myself" (cisgender male, 56–60 years old). Racial pride and belief in the strength demonstrated by Black role models was also present: "[Also,] Black people are very strong people. And I feel like I'm a strong Black woman. I seen a lot of Black females that I know that have gotten themselves clean together and that helped me" (cisgender female, 56–60 years old).

3.2.2.2. "Instead of buying drugs, I have to buy Pampers". Participants frequently identified *responsibility to one's family* as a motivator for self-change. Three subthemes emerged for familial responsibility. For some, one's *financial responsibility to take care of one's children* was a deterrent from continued use: "Instead of buying drugs, I have to buy Pampers. I have to buy shoes, I have to buy clothes for the baby. It's all about the baby" (cisgender female, 51–55 years old). Self-change could also happen as *response to the death or illness of a family member*: "What made me, as far as me staying clean, which is not easy, in 2018, my mom was diagnosed with myeloma cancer. And she ain't have nobody but me. And she was over there asking for me, so, I had, really had no choice" (cisgender female, 61–65 years old). Self-change could be a way to *re-establish one's familial responsibilities and be a role model*: "The biggest thing [in my decision to quit] was loss of respect. I am the oldest child [and] I was always the good big sister. And my brothers and my sister looked up to me. I failed them when they found out their sister was on cocaine" (cisgender female, 51–55 years old).

3.2.2.3. "In fact, it got to the point where I start feeling bad, and people start treating me like I wasn't nobody". Participants reported that *social regard* was important motivator for self-change. Two subthemes emerged for social regard. Across participants, being in active addiction was associated with the *pain of loss of respect from one's community*, with one participant stating, "In fact, it got to the point where I start feeling bad, and people start treating me like I wasn't nobody" (cisgender female, 61–65 years old) and another asserting that the pain of being belittled "weighs on you mentally, because you're not that person, but people don't see it" (cisgender male, 56–60 years old). Thus, quitting cocaine was a way to cast off the stigma and shame of addiction, not just for oneself, but for one's loved ones: "I got scared, and I didn't want my children to have to bury me. I didn't want them to have the stigma of your mother OD['d]. And not make them feel guilty or make them feel any type of way about me being their mother" (cisgender female, 61–65 years old). Self-change could also be driven by a desire to *maintain one's reputation*: "I didn't want people to associate my name with [that] anymore, you know?" And for participants, self-change was *an act of self-love that had the potential to change one's standing in society*: "I want to prove [society] wrong by trying my best to love myself and being myself" (cisgender female, 51–55 years old).

3.2.2.4. "You ask God to help you because you can't help yourself". *Spirituality* emerged as an important motivator for self-change. For one, several participants reported asking God to take away their addiction: "And I was praying, and I was like, it's got to be something better than this, God. There's got to be something better than this. Please help me, and He helped me" (cisgender male, 46–50 years old). Participants, who emphasized the importance of spirituality in their self-change process, frequently asserted that the presence of God was necessary given the individual's inability to change on their own: "I believe in God, and when you submit that, when you ask God to help you because you can't help yourself. You need help with this" (cisgender female, 61–65 years old).

3.2.2.5. "I got to the point where I was sick and tired of being sick and tired". A fundamental *turning point* was another important factor for self-change. Two key subthemes became apparent in relation to this theme. For one, participants *reached a critical point where they get tired of being stuck in the cycle of addiction*: "I got to the point where I was sick and tired of being sick and tired…I decided that I needed to do for me what I couldn't get anybody else to help me with" (genderqueer female, 51–55 years old). For some, this critical point was in the context of a *health scare or near-death experience*: "What actually caused me to stop was a particular incident. That evening, I think I had sniffed so much cocaine that I was numb. I felt almost paralyzed. I was afraid I could feel my heartbeat, pounding out of my chest" cisgender male, 56–60 years old). Second, many participants emphasized that *in the absence of a readiness and intrinsic motivation to change, other factors alone would be insufficient in bringing about change*: "I don't say that all programs don't work, [but] you got to want to get [clean]. You gotta want the sobriety. I tell myself I gotta love me and change me within myself deeply in my soul, every fiber of my being that I don't want to get high" (cisgender female, 51–55 years old).

3.2.2.6. "I stop people, places and things". Participants also highlighted the importance of *changing one's environment*. Two subthemes emerged in relation to environmental change. For one, *removing oneself from a triggering environment* often accompanied the process of self-change. Participants reporting having to withdraw in the self-change process, often in a sweeping and absolute manner: "So this time I just cut everything off. I stop people, places and things" (cisgender female, 56–60 years old). Some attributed self-change to relocating to a new state or city, while others asserted that a change of environment alone would not be sufficient to bring about change: "I saw myself as one of those addicts who would take their drugs and move to another state. I would do the geographical change, but I always brought my stuff. [And] once you start, the obsession and the craziness, it's there" (cisgender male, 41–45 years old). Second, self-change was *not just about moving from an unsupportive environment, but moving to a supportive one*, such as a church: "I think in order to quit, like I said, you have to find some kind of support system, somebody that you could talk to that's not doing drugs themselves or maybe even church like I have" (cisgender female, 56–60 years old).

3.2.3. Maintenance of self-change

Several themes related to the maintenance of self-change became evident in this study. People attributed their continued abstinence or nonproblem use to *continued engagement with God*: "You know, I want to get high. But, you know, I just, I don't. I have to pray, pray constantly, keep me going and keep me off them drugs" (cisgender female, 61–65 years old). Participants reported *mobilizing multiple strategies to cope with cravings and urges*. Some *engaged in other activities or distractions*: "[Now,] when the thought crosses my mind, I'll do something else. I'll start getting more busy or doing something. I like to read a lot. I color. I watch TV a lot. I don't know, I just try to keep myself busy" (cisgender female, 56–60 years old). They also *think through the negative social and health consequences of using*: "When [a craving] comes, it lasts one second and goes away, because I know the consequences that's going to come with it. I [will] lose all my friends and family again and nobody won't trust me no more. I [will] get lazy. I won't eat. I would lose all my weight, and I'll go around looking like a fool. Not bathing, not washing, all that. I will die" (cisgender male, 56–60 years old). People also talked about wanting to be around for family: "I have a job to finish raising this child, that's my destiny, my goal here" (cisgender female, 51–55 years old). *Staying away from certain people, places, and things* continued to be an important way of maintaining progress: "I stay home, I babysit my grandkids, whenever their mothers go to work and everything I stay in the house. I don't hang out. I babysit; I go to church, and that's it. I don't hang around with these types of people anymore. Not at all" (cisgender male, 61–65 years old).

Last, participants stressed the importance of *supporting others in their change journey*: "I'm into helping people now. I turned my life around and I'm trying to try to turn other people's life around. Now, I'm a recovery coach. My job is to try to keep people off the drug and school them from my experiences" (cisgender male, 61–65 years old).

3.3. Semi-structured interview on racial stress and trauma

Table 2 presents the results from the UnRESTS thematic analysis. All participants reported experiencing at least one racial stressor. Either racial profiling or interactions with law enforcement were emergent themes across the different types of racial stress and trauma. Participants reported getting high only to cope with overt racism and vicarious racism experienced by a loved one. Common coping strategies across various forms of racism included seeking social support, leaning on spirituality and faith, practicing acceptance, and avoiding triggers or reminders of the situation.

3.4. Feedback session with participants

The participants validated the findings and did not suggest changes to the findings or report that the findings misrepresented their experience. The participants who attended the feedback session appeared to feel empowered by the findings and were motivated to work together to help others in the community interested in changing their cocaine use. One participant explicitly asked how we could use the study findings to get drugs out of our communities. We went over the allotted hour brainstorming ideas for helping those interested in changing but are not interested in formal treatment. The participants have continued meeting to outline a concrete plan of action. This stage was the beginning of developing new ideas for supporting self-change from SUD using a community-driven approach.

Table 2
Results from UnRESTS thematic analysis.

Question	*n*	Codes
Overt racism: Can you share with me a time you were impacted by racism? This could be something that someone else either said or did to you. [C1]	27	A- Exposure to racial hostility; B- Victim of physical assault; C- interactions with law enforcement; D- Racial profiling/ discrimination; E- Witnessing violence between races
How did you cope with this experience? [C6]		I- Leaving situation; II- Getting high; III- Avoiding it/ignoring it; IV- Seeking social support; V- Faith; VI- Accepting and moving on; VII- Advocacy/social action; VIII- Learning from the situation
Vicarious racism: Can you share with me a time you were impacted by racism as a result of something that happened to someone close to you? [D1]	22	A- Interactions with law enforcement; B- Exposure to racial hostility; C- Racial profiling; D- Attempted or actual violence; *E*- Mistaken for another black person
How did you cope with this experience? [D6]		I- Getting high; II- Avoiding it/ ignoring it; III- Seeking social support; IV- Faith; V- Accepting and moving on; VI- Advocacy/ social action
Vicarious racism: Can you share with me a time you were impacted by racism as a result of something you learned about that involved someone you did not know personally? [E1]	28	A- Police brutality; B- Civilian violence; C- Demonstrations/ protests; D- Social or political events; E- Racism in media
How did you cope with this experience? [E6]		I- Avoiding it/ignoring it; II- Seeking social support; III- Faith; IV- Accepting and moving on; V- Advocacy/social action; VI- Getting upset; VII- Learning from the situation
Microaggressions: Often minorities are the target of subtle or covert racist experiences in the form of what we sometimes call "microaggressions." Can you give me a recent example? [F2]	18	A- Attempted assault; B- Stereotypical comments; C- Racial profiling; D- Racist media
How did you cope with this experience? [F6]		I- Avoiding it/ignoring it; II- Seeking social support; III- Faith; IV- Accepting and moving on; V- Advocacy/social action; VI- Learning from the situation

Note. N= 29; *n* = number of participants who endorsed having experienced each type of racism.

4. Discussion

The current study examined factors that contributed to self-change among a sample of Black men and women with a history of CUD. Results of phenomenological analysis indicated several major factors that contributed to self-change from CUD: racial identity, responsibility to family, social regard, spirituality, internal drive to change, and changing one's environment. These results highlight that self-change from CUD is a complex, ongoing, and multifaceted process, and not a solitary decision divorced from context. These identified themes align with several theories of recovery, including social control theory (Moos, 2007) and the theory of stress and coping (Kaplan, 1996). In addition, results from the racial stress and trauma interview suggest that experiences of racism are common among Black adults recovering from CUD, and that the multiple strategies employed for coping with racism may be consistent with the process of self-change. Identifying factors that contribute to self-change, as well as specific race-based stressors, helps to clarify what factors and experiences lead to successful self-change among Black populations. Organizations and institutions can use knowledge of these factors to promote self-change in non-treatment-seeking populations, and to culturally adapt formal treatment strategies and approaches among this underserved population.

4.1. Self-change and racism

In our sample, participants' experiences of racism were common and painful. Notably, more than half the sample reported having experienced racial discrimination in either seeking or receiving health care. This finding supports that racism in health care settings may be a factor driving low treatment-seeking and engagement among Black people (Otiniano Verissimo et al., 2014), and that experiences of racism in other contexts may erode faith in the helpfulness of treatment among Black adults. Additionally, some participants in the sample reported getting high to cope with experiences of racism. Consistent with minority stress models (Clark et al., 1999; Harrell, 2000), experiences of racism may confer additional risk for substance misuse among Black adults. However, participants in this study were much more likely to cope with experiences of racism in ways that the literature has shown to be consistent with successful self-change from SUDs, such as seeking social support (Birtel et al., 2017), connecting with one's faith (Stewart et al., 2017), and practicing acceptance (Cunningham et al., 2005). Thus, the skills and means of resistance that Black adults acquire to survive and succeed in a racist society mirror the tools necessary to overcome addiction. Beyond examining minority *stress*, our study highlights minority *resilience*. While the study cannot necessarily establish the specific temporal order of discrimination and addiction, many of the adults in our sample likely had to cope with experiences of discrimination before experiences of cocaine use. Thus, empowering Black adults to use the same strategies and means of resistance to promote successful change from CUD may improve outcomes in this underserved population.

4.2. Connections to prior research

Consistent with social control theory (Moos, 2007), strong bonds with family, friends, and religion appeared to be important for self-

change in this sample. Consistent with the theory of stress and coping (Kaplan, 1996), participants built self-efficacy and coping skills that helped with triggers. In line with past self-change studies (Carballo et al., 2007), family and health were factors that contributed to initiating self-change; similarly social support and avoiding situations were factors that contributed to maintenance. In line with a qualitative study of self-change with 100 % white participants (Witbrodt et al., 2015), and a qualitative study of Alaskan Native people in recovery from alcohol use disorder (Mohatt et al., 2008), some participants changed behavior after a precipitating incident, such as the death of a loved one or an adverse health incident, or reached a critical turning point in which they decided to stop using. In all studies, use initiation, self-change, and maintenance occurred within a social context. While participants in both the Witbrodt et al. (2015) and the current studies emphasized the importance of the individual in the self-change, they did it in slightly different ways. Whereas participants in the Witbrodt et al. (2015) study generally endorsed "doing it on their own", participants in our study emphasized that internal motivation or readiness to change was necessary, though not necessarily sufficient, for the self-change process. Given evidence suggesting that Black people tend to be less individualistic than their white counterparts (Komarraju & Cokley, 2008; Vargas & Kemmelmeier, 2013), community-oriented approaches to CUD treatment might be particularly beneficial for Black adults.

4.3. Limitations

Though this study has several strengths, the authors note several limitations. For the current study, the authors intended to examine differences between individuals who had achieved complete abstinence from cocaine and those who reduced to nonproblematic use. However, almost every adult recruited for the study had achieved abstinence from cocaine. The primary method of recruiting participants was via community partners with lived experience, both of whom achieved complete abstinence. Future studies might have more success recruiting participants who reduced to nonproblem use through partnering with folks in the community with lived experience of self-change from problem to nonproblem cocaine use who can help with recruitment. The authors also acknowledge that the mean age was 58, and thus the themes that emerged might not apply to younger Black adults. As there were few sexual and gender minority individuals included in the sample, we could not examine within group differences. Additionally, the authors could not examine differences in self-change according to the individual's preferred method of cocaine use. Further, as most participants were living in low-income households, the study could not capture intersections of social class and race. Future work might explore factors that mediate the relation between experiences of discrimination and coping outcomes and explore self-change within specific subsets of the Black community. Last, almost a third of participants in the study had sought treatment for CUD at some point in their lives, though participants did not attribute their self-change to treatment.

4.4. Conclusion

This study is one of the first to examine the process of self-change from CUD among Black adults. Through a narrative-phenomenological approach and thematic analysis, the study characterized common experiences of racial stress and trauma, coping, and self-change that both align with work done in other racial/ethnic groups and highlight potential unique contextual characteristics of the self-change process for Black adults. Community-engaged approaches further strengthen and validate the results. The rich data generated from this study highlight the need for more culturally responsive systems that center the lived experiences of Black people recovering from CUD. The data also demonstrate that the myriad ways in which Black people practice everyday resistance and resilience can have important implications for healing. In summary, overlapping themes emerged between the self-change process and approaches for coping with racial stress and trauma, highlighting that attending to experiences of racism is critical for understanding how we can better support Black people in their efforts to change their problem cocaine use whether through formal treatment or informal processes.

Subjective statement

The co-authors of this study were an Assistant Professor (Multiracial, Black, cisgender female), an Associate Research Scientist (White cisgender male), a Peer Wellness Coach (Black cisgender male), a Research Affiliate (Black cisgender male), a Lab Coordinator (Latino cisgender male), a graduate-level Research Assistant (Black cisgender female), and an undergraduate-level Research Assistant (Black/Hispanic cisgender male).

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CRediT authorship contribution statement

Isaiah Sypher: Writing – original draft, Formal analysis, Project administration. **Anthony Pavlo:** Writing – review & editing, Supervision. **Jaelen King:** Investigation, Project administration, Formal analysis, Data curation, Writing – review & editing. **Richard Youins:** Investigation, Writing – review & editing, Validation. **Amina Shumake:** Formal analysis, Writing – review & editing. **Angela M. Haeny:** Conceptualization, Validation, Resources, Supervision, Funding acquisition, Writing – review & editing.

Declaration of competing interest

Authors report no conflicts of interest.

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