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COMMENTARY

Reducing Overdoses Among African American Individuals in Ohio: An Emerging Public Health Crisis

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ABSTRACT

The drug overdose death rate is a major public health crisis with overdoses now being considered a leading cause of death within the United States, including in Ohio. Currently, opioid overdoses primarily involve heroin, fentanyl, and other drugs such as cocaine and MDMA laced with fentanyl. Of particular concern has been the recent demographic shift regarding those who overdose. Opioid overdoses are increasing at a disproportionately higher rate among African American individuals as compared to individuals in other racial and ethnic populations. A public health approach is needed to address the rising epidemic of opioid overdoses impacting African American individuals. Such an approach would comprise a comprehensive and coordinated strategy in providing prevention, intervention, treatment, and recovery services to achieve a sustainable public health impact.

Keywords: Commentary; African American individuals; Opioids; Overdose; Fentanyl

INTRODUCTION

The drug overdose death rate is a major public health problem throughout the United States as 106 699 lives were lost nationally due to drug-involved overdose in 2021, which is the highest rate ever recorded to date.[1] Among African American individuals, overdose death rates increased significantly in 2020 (44%) and continue to increase at a much higher rate than their White counterparts who demonstrated just a 22% increase during the same time period.[2] The drug epidemic within the United States is not homogenously distributed; 6 states experienced statistically significant higher drug mortality rates than the national rate.[3] These include West Virginia (51.5 overdose deaths per 100 000 persons), Delaware (43.8), Maryland (37.2), Pennsylvania (36.1), Ohio (35.9), and New Hampshire (35.8).[3] Specifically within Ohio, overdose death rates doubled every 3 years from 1999-2016 and demonstrated a 169% increase from 1544 deaths in 2010 to 4157 deaths in 2017.[3] Furthermore, the overdose death rate in 2019 for African American Ohioans (42.9 per 100 000 persons) exceeded the death rate for White Ohioans (37.7) and continues to increase substantially.[4] The purpose of this commentary is to present detailed information about the disproportionate impact of opioid overdoses on African American individuals, with particular focus on Ohio, and to argue for a public health approach to address this crisis. This paper is organized as follows: first, current trends and risk factors are presented. Following, preventive measures, other strategies, and sources of community support are described. The paper closes with a discussion of public health implications in the context of recommendations for future research and enhancements to current programming.

Opioid Use Among African American Individuals

Research results indicate African American males now experience the highest rate of opioid overdose deaths, particularly those aged 35 to 39 years.[3] In fact, in 2017 according to the Substance Abuse Mental Health Services Administration (SAMHSA), non-Hispanic African American individuals had the highest rates of opioid overdose deaths along with total drug-related deaths in regard to synthetic opioids in comparison to additional racial and ethnic backgrounds among the national population.[5] This demographic shift can also be observed throughout the nation, as a significantly

higher proportion of African American individuals are affected by opioid overdoses than are other racial and ethnic groups including White individuals.[5]

Although many lives have been saved due to distribution of naloxone, an opioid antagonist designed to reverse an opioid overdose, along with other grassroots prevention and intervention efforts, opioid overdoses continue to increase.[6] Substantial increases occurred among African American individuals nationally from 2015 to 2017 with African American individuals living in metropolitan neighborhoods experiencing the largest increase compared to other racial or ethnic groups.[7] According to the Health Policy Institute of Ohio (HPIO), during 2019 in the state of Ohio, the opioid overdose death rate among African American Ohioans surpassed the rate among White Ohioans for the first time since 2006, largely due to combinations of fentanyl and cocaine becoming more frequent in the drug supply.[8]

Fentanyl is a synthetic opioid used to treat pain and is up to 50 times as strong as heroin and 100 times as strong as morphine. Fentanyl is also a significant contributor to nonfatal and fatal overdoses across the nation.[9] A 2021 research study determined that 93% of the difference in unintentional overdose deaths within Ohio between the years of 2009 and 2018 can be accounted for the shifts in the lethality of the drug supply.[10] Other research results suggested opioid-related deaths have increased by 60% nationally since 2013 due to synthetic opioids infiltrating the drug supply.[11]

The COVID-19 pandemic has caused health disparities among vulnerable populations to become more prevalent, especially among minority populations, most notably African American individuals.[12] These health disparities have thus contributed to more overdoses among the African American community. For example, between March and June of 2020 when compared to the same months in 2019, the number of unintentional opioid overdoses among Virginia Commonwealth University African American patients who were treated for opioid overdoses in emergency departments increased from 64 to 181 while the number of overdoses treated in emergency departments among White patients increased from just 29 to 32.[12]

Research also suggests that a sizeable percentage of African American individuals who have used drugs report misusing prescription medication to enhance the effects of a combination of other drugs.[7] Along with this, African American individuals living in urban areas are more prone to obtain illegal drugs from drug dealers as compared to African American individuals living in rural areas, as drugs are more readily available in urban areas, which results in increased risk of the drug supply being laced with fentanyl.[7]

Studies show intranasal heroin and other opioid form use along with usage of prescription opioids in a pill form are more common among the African American population when compared to their White counterparts.[7] Consistent with this, African American individuals inject drugs at the lowest level when compared to White individuals and members of the Latinx community.[7] Lower levels of injection may contribute to decreased risk perception and corresponding health disparities, which result in lower attention focused on the opioid epidemic and drug-related problems among this population.[7]

In comparison, cocaine-related overdoses, especially those involving fentanyl, have increased rapidly, especially among African American individuals.[13] African American individuals have the highest rates of overall lifetime cocaine consumption, specifically crack cocaine, when compared to any other racial and ethnic group.[13] In addition to cocaine laced with fentanyl, MDMA use has greatly increased and, as of 2016, is among the most frequently used illicit substance among African American individuals, although these individuals have not historically consumed this product.[14] Although opioids and prescription drugs have been a significant focus in intervention strategies across the nation, the Drug Enforcement Administration (DEA) has also asserted that MDMA is broadly available within numerous inner-city, urban African American neighborhoods across the United States, most notably Chicago, in which MDMA use was reported in 2014 to be the highest among African American individuals.[14]

Adverse health outcomes and impacts within social services have effected individuals and families, most notably within predominantly African American communities. First, infections through injection drug use, for instance hepatitis C and HIV, have become prominent among the drug use community.[15] When individuals share needles and do not disinfect them before usage, they are at elevated risk to contracting infections, which are costly to manage and can lead to death.[15] Second, the opioid epidemic has enhanced the prevalence of neonatal abstinence syndrome succeeding an opioid-positive pregnancy, which lasts several days to potentially several weeks.[15] Third, increased levels of foster care involvement have been observed in areas most impacted by the opioid epidemic when compared to areas in which the opioid epidemic impact has been less severe.[15] Many parents and guardians have been incarcerated or have passed away due to the opioid epidemic, further impacting the foster care system.[13] In addition, grandparents and other relatives have had to provide primary care for their grandchildren because of opioid-related consequences for the parents. Several communities have established relatives raising relatives or grandparents raising grandchildren support groups as a result.

Risk Factors for Opioid Use and Opioid Overdoses

The opioid epidemic has been associated with significant demographic and geographic trends. For instance, vulnerable and marginalized populations within urban areas have experienced increased overdoses.[15] Research suggests that new heroin users are non-Hispanic White individuals and increasingly female; historically, more males consumed heroin.[15] However, the incidence

of opioid overdose deaths among the African American population is now increasing faster than among any other racial and ethnic population.[15] High-risk use of opioids and negative health outcomes disproportionately influence urban neighborhoods and vulnerable populations (ie, sex workers, those within the criminal justice population, and gender minority groups).[15]

The majority of African American individuals with an opioid use disorder come from low-income families and seldom receive culturally competent addiction treatment and recovery resources.[16] Many African American individuals have limited access to evidenced-based treatment and thus this population is seeing more people dying from opioid overdoses.[16] Treatment and recovery providers have been more prevalent in suburban and rural areas when compared to urban areas. A sizeable percentage of African Americans live in urban areas and thus do not have adequate access to treatment and recovery providers.[15]

These concerning trends relate to systemic racism transcending to impact social determinants of health within African American communities. Communities where the majority of the population is African American face increased barriers to education, housing, high-paying jobs, and health care due to distrust and generations of racial discrimination and oppression.[5] Possible solutions include incorporation of culturally competent addiction and treatment providers, rebuild trust with the health care system, and increase access to addiction programming for communities of color.[5]

African American individuals face substantial obstacles that impede them from accessing care, which include residing in racially concentrated neighborhoods, absence of insurance, transportation, childcare, and other barriers, however, the main contributor to risks for overdoses and lower life expectancy is health disparities.[16] African American individuals are disproportionately arrested for buying, dealing, and using drugs across the United States.[15] In 2017, it was found that the African American population represented only 12% of the adult population of the United States although they made up one-third of the incarcerated population.[5] According to the US Sentencing Commission, African American individuals have received longer prison sentences for drug-related offenses than other races in the country despite being convicted for crimes of similar weight.[15] Such statistics indicate that those most likely to be arrested for drug use are those residing in low-income, ethnic and racial minority neighborhoods.[15]

African American Ohioans are 5.4 times more prone to be incarcerated as compared to White Ohioans, and African American children are 1.8 times more prone to experience an adverse childhood experience (ACE) as compared to White children.[4] Results of the ACEs study, led by the Centers for Disease Control (CDC) and Kaiser Permanente during the 1990s to determine how traumatic events that occur during childhood may adversely affect adult mental and/or physical health, revealed direct correlations among childhood trauma, adult incarceration, onset of chronic disease, and employment challenges. Study results also demonstrated a dose-response relationship, the higher the ACE score, the greater the risk for negative outcomes in adulthood.[17]

Research conducted by SAMHSA additionally found that opioid use can be a negative coping strategy within disenfranchised communities affected by trauma from historical poverty, violence, and neglect.[5] Additionally, there are risk factors (which include initiation of drug use at an early age, exposure to traumatic experiences, mental illness, community and familial norms, housing instability, feelings of despair, and lack of social connectedness) at the individual, community, and family level that can contribute to drug use and addiction.[4]

As noted previously, studies have shown that African American men are at higher risk for opioid overdose deaths than other racial and ethnic groups.[3] African American men have historically experienced adverse health outcomes as compared to other demographic groups. Research by the Kaiser Family Foundation on health disparities found that African American men have experienced worse health outcomes on a range of health indicators as compared to White men. Notably, African American men have an unemployment rate that is 2.4 times as high when compared to White men.[18] Research suggests higher rates of opioid overdose deaths among this population can be attributed to a high unemployment rate, health accessibility (primary care and mental health access), and the availability of prescription versus non-prescription opioids.[3]

Additional statistically significant predictors of prescription opioid misuse among African American individuals include educational attainment, housing instability, gender, perceived risk, and socioeconomic status.[14] In 2019, Ohioans with less than a high school education were 15 times more likely to experience an overdose as compared to Ohioans with at least a bachelor's degree.[8] African American individuals in the US are more likely to experience negative health outcomes and consequences from drug use as compared to any other racial and ethnic populations.[14] These outcomes illustrate the impact of social determinants of health and the need for a social-ecological approach to produce systems-level community change through addressing interpersonal, individual, organizational, community, and policy factors to influence behaviors and health outcomes.[5]

African American men and women have long faced structural barriers that narrowed their access to efficient addiction treatment. These included lack of insurance, inadequate transportation, distrust of medical providers, and provider bias. In combination, these barriers resulted in decreased rates of medication assisted treatment (MAT) or other addiction recovery resources among African American individuals with an opioid use disorder.[19] Participants in the National Survey on Drug Use and Health cited a host of reasons, including mental health diagnoses, poverty and employment concerns, lack of health insurance, and public stigma, for not receiving drug treatment.[13] As a result, it might be concluded

African American males are less likely to seek treatment for their drug addiction due to stigma, fear of incarceration, and distrust of the health care system.

With regard to incarceration, African American individuals struggling with addiction within the state of Ohio experience disproportionate results. For instance, 17% of those within the treatment court are African American, while African American Ohioans occupy 45% of the state's prison system.[8] Strikingly, drug overdose is a prominent cause of death among inmates/prisoners returning to their community after being released from prison or jail.[7] According to Leah Dennis Ellsworth, the CEO of the Cincinnati Urban Minority Alcoholism and Drug Abuse Outreach Program (UMADAOP), "African American males normally will not go into treatment. There are also issues around discrimination or how they see African Americans with health care and the access for them to even know how to navigate the health care system."[20]

Preventive Measures and Interventions

Programs and interventions exist at the community, statewide and national level to combat the opioid epidemic. For instance, policymakers have restricted prescribing practices by limiting the daily supply of opiates depending on the patients' need, disciplining doctors who have overprescribed opiates, closing pain clinics also known as "pill mills," and establishing opioid prescription monitoring programs at the state level to prevent patients from doctor shopping.[7] Community-level interventions include syringe exchange programs, fentanyl testing strips, naloxone distribution, MAT, and promoting treatment and recovery resources (namely detox programs and support groups). Stigma reduction campaigns have also been successful in reducing the stigma of addiction and promoting hope for those in treatment and recovery.[15]

Access to MAT and addiction treatment services in general is unfortunately not equitable among varying racial and ethnic groups. Of 13 million outpatient substance use disorder (SUD)-related visits when buprenorphine, an approved opioid use disorder (OUD) treatment in an office setting, was prescribed, 12.7 million of those visits were from White patients whereas 363 000 were from patients of all other race and ethnicities.[21] African American males are less likely to receive addiction treatment and adequate medication for an OUD when compared to others.[3] One potential reason for these disparities is a lack of providers who accept Medicaid and provide treatment for SUD. Persons of color are two times as likely to receive Medicaid assistance when compared to White individuals, however SUD treatment providers that accept Medicaid are far less common in communities with higher rates of people of color.[21] There are disparities in OUD treatment options as well; White individuals are more likely to be distributed buprenorphine, while people of color are likely to be distributed methadone.[21] This trend is troubling as methadone is the most stigmatized form of MAT for an OUD, more deadly if misused, and has been a tool historically identified to control crime.[21]

Racial disparities also exist in the distribution of naloxone. When participants that witnessed an overdose reported whether they have heard of naloxone, of the participants that had not heard of naloxone, the vast majority (94%) were African American.[22] In addition, African American individuals were less likely to engage in naloxone training, less likely to know how to access, and less likely to understand the use of the product.[22] Other findings suggest African American individuals with a fracture and diagnosed with chronic pain syndrome were given naloxone at decreased rates when compared to other racial and ethnic groups.[23] While naloxone distribution has been very successful, continued efforts should be incorporated, especially focusing on African American populations.[23]

Recommended Strategies

Even though progress has been made in providing prevention, treatment, and recovery programs and interventions to reduce opioid overdoses, currently opioid overdoses are increasing among the African American population while other populations have seen rates remain steady or even decrease. Enhanced efforts are needed which ensure that the social determinants of health are addressed. Improvements are greatly needed within the African American community regarding affordable and quality health care, housing, and education.[15]

First, the issue of African American males being incarcerated at a significantly higher rate than White males needs to be addressed. The impacts of potential biases within the criminal justice system include negative health outcomes for African American men who experience extensive barriers to receiving addiction treatment and recovery supports once integrated back into the community after incarceration.[4]

Next, harm reduction efforts can be improved. While naloxone distribution is an imperative tool when responding to an apparent opioid overdose, it is not the only strategy when addressing the opioid epidemic.[21] Naloxone distribution might only prevent 6-7% of opioid overdose deaths and even increase the possibility of nonfatal opioid overdoses since high-risk individuals, as in people who inject drugs, remain alive.[21] This is evidenced in areas in which large quantities of naloxone have been distributed which have still experienced increased overdoses due to factors including increased access to prescription drugs, markets changing among the street opioids, and social isolation, especially among older individuals.[21]

Since 2015, SAMHSA has recommended that naloxone be distributed to patients when they are discharged from recovery or detoxification services, however, few recovery and detoxification programs provide this service.[24] Health care or organization policies might recommend that naloxone distribution during a discharge from a recovery or detoxification program be a standard of practice for opioid users. Programs then might keep track of the number of naloxone kits that they distribute. Naloxone can be

distributed within opioid overdose hot spot neighborhoods through collaborating with local health departments, community agencies, and health care and treatment providers. Most health departments and statewide departments of health currently monitor opioid overdoses in a collaborative effort with emergency departments, coroners, and other public health and health care professionals, and alert the community and respective agencies on overdose trends.[15] In addition, public health professionals can become familiar with the demographics of high-risk opioid users to tailor their harm reduction outreach objectives and meet the target audience accordingly.

Unfortunately, African American individuals, especially African American males, are less likely to access treatment for an OUD. As previously noted, research has demonstrated that African American opioid consumers have the lowest treatment completion rate when compared to other racial and ethnic groups and cite several barriers to MAT including childcare, insurance, and transportation.[7] Additional studies show that African American individuals present cultural beliefs and barriers in accessing treatment, which include overall mistrust in the usage of methadone as a form of MAT and mistrust of syringe/needle exchange programs.[23] In some instances, however, the utilization of peer outreach along with mobile treatment services has resulted in measured improvement in African American individuals gaining access to treatment.[7] Research has suggested that a potential avenue to engage African American individuals who inject drugs is through peer educators distributing naloxone and providing training on how to use it.[22] Peer education is an evidenced-based model that is used for all age levels that has been used tremendously in substance use/misuse prevention along with peer counseling in mental health and addiction treatment and recovery.[15]

One additional harm reduction approach is use of fentanyl testing strips. These could be more widely used and available for communities, especially within urban areas in which large amounts of overdoses have been occurring. In a study of individuals who injected drugs and their usage of fentanyl testing strips, results indicated that African American individuals were significantly less likely than White individuals to use fentanyl testing strips (30% compared to 51.1%), and had almost half the chance of using fentanyl testing strips than any other racial or ethnic group.[25] African Americans individuals who used a fentanyl testing strip were also less likely than White individuals to report a positive result (63.9% vs. 82.2%).[25] Further research is warranted to determine the perception of usage of fentanyl testing strips between the racial or ethnic groups and additional harm reduction outreach efforts can be conducted within African American communities.

Other Sources of Community Support

Implementation of social emotional learning programs, especially among vulnerable and marginalized populations, has been proven effective in reducing the prevalence of substance use and misuse.[5] Since African American children tend to have higher ACE scores, public health and health education professionals should incorporate trauma informed care initiatives to reduce the prevalence of substance use and misuse. These programs can be incorporated into the education and community sector, for instance adding evidenced-based social emotional learning programs within the school curriculum at all grade levels and within community settings such as recreation centers, after school programs, and childcare settings. Some of these programs include Botvin LifeSkills®,[26] and Project Towards No Drug Abuse (TND).[27] It is important to ensure cultural humility is incorporated when these programs are implemented and evaluated to make sure diverse priority populations feel included and represented.[28]

Community settings including barbershops, beauty salons, and churches have been considered culturally competent locations in connecting African American individuals with health and wellness information in overcoming sociocultural and institutional barriers in accessing health services.[18] These may also present opportunities to implement social emotional learning programs as described above, in nontraditional settings. Findings from research suggest that sporting events and barbershops are preferred locations for African American men in receiving health information,[18] while beauty salons serve as accessible locations in all communities and are often frequented by African American women.[29] As such, 94% of licensed cosmetologists have reported discussing health topics with their customers, which makes beauty salons an unconventional opportunity to reach certain target audiences and promote health messages.[29] Public health and health education professionals can collaborate with local barber shops and beauty salons in African American communities to provide education and information on the risks of opioid use/misuse and associated overdose risks. These professionals could also provide naloxone training and naloxone kits, share prevention, treatment and recovery resources, and other harm reduction efforts to better serve the target population. Other avenues of community-driven efforts include support groups for families affected by addiction including the National Alliance on Mental Illness (NAMI) family support group,[30] which have been effective in providing a sense of community and belonging for those impacted by addiction.

Faith leaders within communities of color should be encouraged to assist in implementing evidenced-based programs aimed at opioid use prevention. For instance, a program was developed, implemented, and evaluated through the Faith-Based Network Detroit (FBND), primarily focused on alcohol, tobacco, and other drug (ATOD) prevention strategies.[31] The FBND staff provided quarterly ATOD prevention workshops, which were evaluated through surveys of participants, case study interviews, focus groups, review of program data, and interviews with key informants.[31] In one measure, most of the ATOD prevention program participants (77%) indicated that workshops were “very useful” and that 93% of those surveyed within FBND confirmed that they are conducting ATOD prevention-related programming.[31]

PUBLIC HEALTH IMPLICATIONS

Drug overdoses have a profound negative impact on public health in Ohio, and, among Ohioans, African American individuals are at increased risk for drug overdoses, including opioid overdoses. This emphasizes the importance of highlighting protective factors and mitigating risk factors for African American individuals to further reduce the incidence of OUD among this marginalized population through a comprehensive, evidence-based, public health approach. It is critical that further research be conducted to investigate health disparities affecting African American individuals by active engagement with the priority population. Additionally, there is a need to supplement limited research presently available on improving addiction care for African American individuals. Incorporating equitable data collection and culturally competent programming to best reflect the values and needs of African American individuals can further inform best practices in current and newly developed OUD interventions delivered by public health professionals.

AUTHOR CONTRIBUTIONS

The corresponding author made substantial contributions to the conception of the work, drafting the work and revising it critically for important intellectual content and final approval of the version to be published. The co-author assisted with editing and finalizing the article for submission. Both authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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