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Examining narratives around adverse childhood experiences and social determinants of health in media coverage of substance use in two mid-western cities

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Abstract

Local media narratives play an important role in how people interpret and propose solutions for health issues in their community. This research characterized narratives about adverse childhood experiences (ACEs), and/or social determinants of health (SDOH) in media coverage of substance use. Scans covered articles published in the *Detroit Free Press* and the *Cincinnati Enquirer* from March 1, 2019 to June 1, 2019 and March 1, 2021 to June 1, 2021. Scans used search terms for opioids and substance use. Included articles were coded and analyzed for narratives about why people use substances, how to prevent substance use, and how ACEs or SDOH relate to substance use. While half of the included articles reported on the overdose epidemic, the most common type of media coverage reported on criminal justice milestones. Other common narratives identified addiction as an illness that should be treated; and over-prescription of painkillers or the strength of the drugs as causes of substance use disorders. Narratives about SDOH and the primary prevention of ACEs and substance use were limited. Transformational narrative change work can increase support for addressing the root causes of ACEs and substance use. Results suggest this strategy remains largely untapped in the formal media.

Keywords

adverse childhood experiences; media; narrative change; primary prevention; social determinants of health; substance use

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

BACKGROUND

The United States has seen a significant rise in drug overdose deaths, quadrupling since 1999 (Hedegaard et al., 2021). Provisional data from the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics estimated 107,622 drug overdose deaths in 2021 in the United States; this was a 15% increase from 2020 (CDC, 2022). Some communities have been deeply affected, with region, urbanicity, economic conditions, prescribing practices, treatment accessibility, and other factors intersecting to facilitate the crisis (Schieber et al., 2019; Wilkes et al., 2021). Concurrently, the country grapples with endemic adverse childhood experiences (ACEs). ACEs are preventable, potentially traumatic experiences and household issues that occur between the ages of 0–17 years, such as experiencing or witnessing violence or abuse and growing up in a household with substance use or mental health problems (CDC, 2019a). Recent research documented that about 60% of sampled adults reported experiencing at least one ACE in their lifetime, and almost 16% experienced four or more (Merrick et al., 2019). Research has consistently found that ACEs are linked to negative economic, educational, and health outcomes over the life course and across generations (Felitti et al., 1998; Merrick et al., 2019; Metzler et al., 2017).

In addition to parental substance use being an adverse experience for children, ACEs are a risk factor for subsequent substance use. In a scoping review of the relationship between ACEs and substance use disorders, there was consensus across studies of the positive association between ACEs and developing substance use disorders in adolescence and adulthood, and higher prevalence of ACEs among people with substance use disorders (Leza et al., 2021). A retrospective cohort study found a graded relationship between number of ACEs and lifetime substance use, initiation of substance use, substance use disorders and addiction, and parental substance use (Dube et al., 2003).

Both ACEs and substance use trends can be better understood by considering the social determinants of health (SDOH)—the social, economic, and environmental context in which people live, learn, work, and play (e.g., criminal justice systems, healthcare systems, education systems, etc.). The SDOH framework acknowledges that inequities in health outcomes are largely affected by one's position within social hierarchies and socioeconomic positions over the life course (WHO, 2010). In addition to increased opioid prescribing for chronic pain, structural factors such as lack of economic opportunity, poor working conditions, housing instability, and eroded social cohesion are possible root causes of the opioid crisis (Dasgupta et al., 2018). This is also true for the inequities seen in ACEs. While ACEs impact everyone, groups that have been economically/socially marginalized, including racial and ethnic minorities, women, and sexual and gender minorities, are disproportionately affected by ACEs compared to others (Giano et al., 2020).

While SDOH are root causes of both ACEs and substance use, the majority of strategies to address these issues have relied on criminal justice and treatment approaches (Klevens & Alexander, 2019; Matthew, 2018). Less attention has focused on preventing ACEs or substance use by addressing root causes. For example, policies that reduce poverty and economic inequality (e.g., strengthening household economic security) can help prevent ACEs, reduce multiple forms of violence, and reduce risk factors for ACEs (CDC, 2019b).

The field of overdose prevention has similarly implemented policy approaches—such as providing guidelines for prescribing opioids, creating prescription monitoring systems, and increasing access to naloxone and treatment (CDC, 2018b, 2021; Guy et al., 2019)—although there has been less research on higher level SDOH, such as the impact of economic or social policies on preventing substance use. In addition to directly impacting ACEs and substance use, addressing social and structural conditions can increase the efficacy of individual, familial, and school-based programs (CDC, 2018a).

Narratives, or the stories that help us understand why a phenomenon occurs and how to address it, are critical in increasing support for addressing SDOH. The Open Society Foundation defines narratives as “a collection or system of related stories that are articulated and refined over time to represent a central idea or belief” (Building Narrative Power for Racial Justice and Health Equity, 2019, p. 5). Narratives reflect societal values and beliefs in legal, economic, and social spaces—including local media—and serve to help people interpret situations and other people (Metzler et al., 2021; American Medical Association & Association of American Medical Colleges, 2021). Multiple narratives co-exist but “dominant public narratives are those that eclipse others and have the most power to shape public consciousness, including society’s collective senses of both responsibility and possibility” (Metzler et al., 2021, p. S35). Dominant narratives often focus on individual success, or lack thereof, without acknowledging the role of existing power hierarchies to the detriment of historically and currently marginalized groups.

Research has found that when people understand the societal cause of an issue, such as substance use or childhood adversity, they are more likely to support policy solutions (Klevens et al., 2021). For example, those who recognize the role of economic conditions or access to high-quality education in the current overdose epidemic are more likely to support more equitable economic or educational policies (e.g., increased minimum wage, increased access to high-quality early child-care), whereas those who focus on individual factors that lead to substance use are more likely to focus on criminal justice or therapeutic responses. Critical to health equity efforts, narrative change strategies explicitly focus on shifting narratives from individual-level stories to a focus that includes the historical, social, economic, and/or political context and policy-level responses.

Media coverage simultaneously reflects public opinion and debates while also helping shape them (Quan et al., 2020). Narratives in local media play an important role in how people interpret current events, prioritize public health issues, and respond to crises in their communities, and can play an important role in narrative change efforts (Weathers & Kendall, 2016). Dominant narratives can be woven into media coverage explicitly and implicitly. Explicitly, this may look like the inclusion of stigmatizing (or non-stigmatizing) language, such as “addict” instead of “person affected by substance use,” or quotes that reflect popular sentiment (e.g., “when kids make bad choices, they must face the consequences”). Implicitly, narratives can be reflected in the type of coverage (e.g., predominately criminal justice milestone coverage for Black people and predominately in-depth special interest features of White people), whose quotes are included, and if any contextual information is provided (e.g., information about the overdose epidemic in the region, links between substance use and ACEs or SDOHs).

Research on national newspaper coverage of the opioid crisis over a 15-year period found the majority of stories focused on law enforcement, with only 4% focused on harm reduction or treatment (McGinty et al., 2016). In a study of national media coverage of ACEs, almost 40% of articles identified distal and structural causes, and around 20% reported on structural solutions (e.g., ending anti-immigration policies and increasing access to health care) (Purtle et al., 2021). Webster et al. (2020) note that when media presents a problem as the fault of individuals, it shifts solutions away from targeting institutional players underlying the problem at large (Webster et al., 2020). Similarly, Quan et al. (2020) conclude that shifting narratives to center on the root causes of the opioid crisis could lead to a deeper understanding and assign appropriate responsibility for the epidemic (Quan et al., 2020).

This study characterizes how ACEs or SDOH were discussed in the context of opioids and substance use in the predominant media outlets in Detroit and Cincinnati as part of a larger project evaluation. The CDC funded the *Comprehensive Community Strategies to Prevent Adverse Childhood Experiences (ACEs) and Opioid Misuse* project to increase support for primary prevention of ACEs and to prevent substance use by engaging in a transformational narrative change process in three US communities—Cincinnati, Cleveland, and Detroit—from 2019 to 2021. The project funded local public health departments and community organizing groups in each city. All three cities were deeply impacted by the ongoing overdose crisis, as well as the long-standing “war on drugs,” and were home to high-capacity health departments and community groups to implement this demonstration project. Each partner engaged in the process of (1) identifying current narratives in their communities regarding substance use and ACEs; (2) creating aspirational and transformative narratives that purposefully uplift the stories of those who have been traditionally marginalized or silenced, identifying structural causes of inequities, and inviting collective action; (3) disseminating the narrative to key partners and audiences; and (4) observing the impact of these efforts. These efforts worked to shift the way people think and talk about why ACEs and substance use occur from an emphasis on individual responsibility to an understanding of SDOH.

This study addresses objective one from above: “identifying current narratives in their communities regarding substance use and ACEs.” The study specifically examined dominant narratives regarding substance use in Detroit and Cincinnati’s local media, with a particular focus on how these narratives included ACEs and/or SDOH. This study was not meant to be evaluative in nature as there was no comparison group, and regional print media was not an explicit target of narrative change efforts in the larger project. Rather, this study serves as part of a formative process to better understand how key health issues are understood in these communities and provide important context for the social and political environment in which project activities were conducted (Egen et al., 2020; Hsieh & Shannon, 2005).

METHODS

Media scans

A critical content analysis of newspaper articles was conducted to characterize narratives about ACEs and SDOH in articles published about opioids and substance use in the *Detroit Free Press* and the *Cincinnati Enquirer* at the beginning (2019, Time one) and end (2021,

Time two) of the project. Content analysis allows for both qualitative and quantitative descriptions of the data and findings and incorporates systematic coding and categorizing to describe content characteristics and patterns (Vaismoradi et al., 2013).

These newspapers were selected as they are the largest daily newspapers in their respective cities. As of December 2020, the *Detroit Free Press's* daily print circulation was over 100,000, and Sunday circulation was over 900,000, and the *Cincinnati Enquirer's* was approximately 57,000 and 107,000, respectively (Gannett, 2020). The *Cincinnati Enquirer's* coverage also expands into northern Kentucky; consequently, articles included in the scan capture narratives reflected in this context as well. Articles from the third project site, Cleveland, were not archived in a way that was searchable by keyword and date and therefore could not be accessed for inclusion in this study.

Scans were conducted using ProQuest/US Newsstream at two time points covering articles published between March 1, 2019 to June 1, 2019 (Time one) and between March 1, 2021 to June 1, 2021 (Time two). The timing of the scans corresponded with the beginning and ending phases of the larger project. Both scans used search terms for opioids and other substance use (see Table 1). The second scan included additional terms related to SDOH, but for this analysis only articles relevant to substance use were included. Articles were excluded if they were duplicates, obituaries, or not relevant to substance use. Types of included articles were general news, editorials, op-eds, and human interest. Articles that were included were systematically coded for both descriptive data (e.g., date of publication; place of publication) and thematic content. A directed approach was used to create codes a priori based on previous media reviews of related topics, empirical knowledge of causes of substance use, and theoretical understanding of narrative change (Egen et al., 2020; Hsieh & Shannon, 2005). Included articles were coded for: (1) whether the article reported on anecdotes of substance use and/or trends of the epidemic; (2) the type of news hook (e.g., crime reporting, feature article, and release of a scientific study); (3) voices represented (e.g., police, community members, and public health experts); (4) reporting about race and ethnicity; (5) narratives about opioid/substance use disorder and prevention; (6) discussion of SDOH relationship to opioids/substance use; and (7) discussion of ACEs relationship to opioids/substance use. For 4–7, coders wrote summaries of the narratives. Coders also wrote a very brief summary for each article. Data was recorded in Microsoft Excel. One coder completed the coding for Time one, and two coders completed the coding for Time two. While intercoder reliability was not established, coders were trained on the use of the data extraction form and met to discuss coding to enhance consistency between coders.

Analytic memos

Analytic memos were created for each time point (i.e., Time one data collection and Time two data collection) that included a summary of the number and type of articles included, prevailing narratives, and major local or national events discussed in articles, example articles of various narratives, and other observations by the coders. Memos and analysis of coded data was partially summative—enumerating article content and interpreting this within the underlying context (Hsieh & Shannon, 2005). Memos were shared and discussed with team authors, as well as other team members on the Community ACEs project at

large. Results describe the dominance (or lack thereof) of narratives regarding substance use and how ACEs and SDOH are incorporated into reporting on substance use. Results are organized by theme; within each theme, results are described by time (i.e., Time one and Time two) and place (i.e., Detroit and Cincinnati).

RESULTS

Overview

At Time one, a total of 466 articles were reviewed, and 209 articles were included in the analytic sample (Cincinnati: 159/309 and Detroit: 50/157). At Time two, 44 of the 641 reviewed articles discussed opioids/substance use, and so are the focus here to align more closely with the analytic sample from Time one. At Time one, both newspapers identified the opioid crisis as a significant concern that needs addressing, as indicated by the portion of articles that reported on trends, not just anecdotes (Detroit: 70% [35/50]; Cincinnati 45% [72/159]). At Time two in Detroit, 30% (3/10) of articles reported on trends (such as prevalence estimates, changes over time, or other data to situate the problem), while 47% (16/34) of articles in Cincinnati reported on trends. At both sites, only a small portion of articles explicitly discussed why people misuse opioids or substances. Coverage instead focused on preventing overdose (as opposed to preventing use), which discussed treatment and harm reduction strategies. Figure 1 provides a summary of the findings about the narratives represented in the two newspapers and provides examples of the way the narratives are expressed. The narratives are organized by level of dominance based on how frequently a narrative was coded in the included articles.

Narrative 1: Substance use is a criminal justice issue—Approximately 36% of articles at Time one (57/159: Cincinnati; 18/50: Detroit) and 25% at Time two (9/34: Cincinnati; 2/10: Detroit) reported on criminal cases or criminal justice milestones (e.g., arrests and sentencing). This narrative identified using and selling substances as a crime and associated substance use with committing crimes, including child abuse and neglect. Examples of these types of articles include criminal cases involving drug trafficking, cases of police killings in which the victim had substance use issues, and criminal justice efforts to stop drug sales. While some articles reported solely on facts of criminal cases (e.g., arrests for driving under the influence), other articles held an implicit, and sometimes explicit, narrative that substance use was a personal choice, and those bad decisions reflected on a person's character and deserved punishment. One article about the sentencing of a man who was selling heroin and fentanyl mixed together quoted the prosecuting attorney as saying, "Obviously this jury was sick and tired of heroin dealers spreading death and destruction across our community...The long sentence serves as a warning" (Mayhew, 2019).

In other articles, a person's substance use history was reported, even though it was not clearly linked to the current issue. For example, an article was published discrediting a woman who reported sexual harassment because it was later found she had a history of substance use, although there was no link to the two issues or explanation as to why her substance use would be relevant in a workplace sexual harassment case (Banta, 2019). Another series of articles covered the trial of a woman driver involved in a car crash that

resulted in the death of two people; the cause of the crash was due to her tire exploding and she was not found to be under the influence of substances while driving, yet her history of substance use was repeatedly covered (Grasha, 2019a, 2019b).

Narrative two: Substance use is a disease that requires treatment and/or harm reduction approaches—

Another narrative revolved around preventing fatal overdoses and accessing treatment for people misusing substances. Articles reported on naloxone distribution, access to treatment (e.g., an opening of a new service), harm reduction practices, training, and supplies (e.g., needles for exchange programs) in the community. One article reporting on a large donation from the Bloomberg Foundation to address the opioid crisis quoted Bloomberg as saying, “The opioid crisis is a national emergency that calls for bold leadership and big ideas... We hope our work in places like Michigan... spares more families the heartbreak of losing a loved one to opioid addiction or overdose” (Gray, 2019). There was some explicit acknowledgment of the difference in how people are coming to understand and respond to substance use (i.e., there is a shifting narrative). For example, in a human-interest article about the expansion of harm reduction practices in Cincinnati, the author wrote: “With the heroin epidemic grew the understanding that addiction is a health issue. And fixing a health problem by locking it in jail, or even by scolding it, was not terribly effective. That maybe fixing it, or starting to, requires being there. Being kind. Helping people stay safe” (DeMio, 2021a). Despite this shift towards overdose prevention and recognition of structural factors in the epidemic, the proposed solutions were still largely oriented around individual treatment.

Narrative three: The opioid epidemic is a result of over prescription and strength of drugs—

At Time one, there was a prominent narrative in Detroit about holding pharmaceutical companies accountable and in Cincinnati about shutting down “pill-mill” doctors. These were related to ongoing or recently resolved litigation against a pharmaceutical company and a recent large-scale joint operation to shut down doctors who were illegally prescribing and distributing opioids (DOJ, 2019). These articles often incorporated both narratives around criminalizing the selling of opioids and narratives around addiction as a disease that needs treatment. For example, the article “*Know your enemy: America’s deadliest drug*” describes how the trend of overprescribing painkillers lead to increased use of other substances, like heroin and fentanyl, a synthetic opioid. While the article focuses on recent overdose trends, it starts by recounting an anecdote of a toddler dying from an overdose (Kovanis, 2019a). Later, the article describes who is dying from fentanyl with a quote from an addiction medicine specialist and deputy medical examiner: “High school teachers, homeless guys, satellite TV salesmen, GM workers, girls in tanning beds, pizza delivery dudes, parents, frat boys and parolees—fentanyl is everywhere” (Kovanis, 2019a). This quote reflects a non-stigmatizing narrative that addiction can impact anyone and therefore deserves to be addressed.

At Time two, this narrative was more limited, with two articles covering a criminal case of two doctors charged with overprescribing pain pills, one discussing the availability of opioids’ relationship to the rise of overdose deaths, and three referencing the addictiveness

of painkillers in relation to drug take-back programs with one op/ed calling for doctors to be more cautious in prescribing opioids, averting the need for take-back programs.

Narrative four: Social determinants of health impact the opioid crisis—At Time one, there was limited discussion of the relationship between SDOH and opioids/substance use. One article in Detroit titled “White drug addicts most likely to get addiction medicine” discussed racial inequities in accessing recovery services. The article reported distrust in medical institutions as a root cause of these inequities but did not discuss racism within institutions or systematic racism that creates other barriers to care (Kovanis, 2019b). More often, SDOH and substance use were talked about in the same articles but not directly linked. The Cincinnati Enquirer had several feature articles on how poverty was impacting Ohioan’s lives, and explicitly on SDOH. However, these articles did not explicitly link this to the opioid overdose epidemic. There was also coverage of efforts around criminal justice reform in both sites, such as reforming bail, decriminalizing marijuana, the overcrowding of prisons, and the need for mental health treatment instead of jails for many people currently in prison. Again, most of these articles did not directly link substance use to these issues. In Cincinnati, there were two articles about moving people with substance use problems out of the court system into treatment, although some of these programs were being implemented in Northern Kentucky.

At Time two, 14 out of 44 (31.8%) articles discussed the relationship between SDOH and opioids/substance use. Three of these articles highlighted trends in overdose deaths and how the COVID-19 pandemic contributed to these trends, one article discussed a new policy initiative related to “good Samaritan” laws granting immunity for people who use drugs if they call 911, two articles were human interest articles that discussed SDOH and opioids, one article was a feature about a jail program that supports former inmates with substance use problems via structural and financial supports, and one article was an op/ed focused on investing in the wellbeing of communities with union jobs. This author made the argument that “union jobs provide livable wages, which create strong and stable families. When we have strong, stable families, we have strong, stable communities. And strong, stable communities create a strong, stable Cincinnati... Investing in people’s lives should be the primary focus of our City Council. For when we do invest in people’s lives, we will see a reduction of the symptoms of economic inequality that currently plague our city. Some of those symptoms include: poverty, gun violence, the opioid epidemic, theft, robbery and prostitution” (Garry, 2021).

There were an additional four articles in Cincinnati that featured discussions of policies/initiatives related to substance use or incarceration. Examples include rules related to methadone access, bail reform, concerns about racial bias in naloxone distribution in Ohio, and bills to increase access to drug treatment and provide support after incarceration. This last example, an article titled “*Flagrant nonsupport charge tears apart mothers and children*” invokes narratives that addiction is an illness that needs treatment, as well as highlights the structural factors that contribute to addiction or lack of recovery. The article, published in Cincinnati but about work in Kentucky, tells the story of a mother “who has been caught in a vicious cycle of incarceration and addiction.” The article describes how losing custody of her children for failing to pay child support “began a spiral into addiction to Xanax

and eventually other drugs” and the mother’s challenge in attending meetings to stay sober because of limited public transportation (Samuel, 2021). The article then describes the large-scale problem of mental health, substance use, and incarceration: “The Commonwealth has admitted more and more women to prison for nonviolent, low-level offenses, punishing women with felonies for conduct that stems from the failure of mental health and substance abuse treatment in poor communities...If the goal is to strengthen families, then separating women from their children and branding them with a felony is not the answer” (Samuel, 2021).

At Time two, in Detroit, only three articles drew the connection between SDOH and opioids/substance use, one of which also discussed ACEs. One article featured a community course on Narcan treatment for harm reduction and mentioned that the hardships associated with COVID-19 have exasperated the opioid crisis. The next was an op/ed that discussed police reform and the need to address SDOHs, including substance use, to reverse the trend of incarceration. The third article featured a drug treatment program that helps connect people with other structural needs, including housing; this included a mention of substance use as a coping mechanism for childhood trauma.

At both time points, there was limited discussion of race, racial disparities, or racial discrimination in narratives about opioids/substance use. Two articles, as noted above, reported on racial disparities in accessing recovery services or Narcan. Articles generally did not report on the race/ethnicity of the people discussed or quoted in articles, so the scans were not able to examine in narratives that differed by the subjects’ race/ethnicity. One human interest piece reported on the life of a Black man who became addicted to heroin as a young boy in the 1960s, describing his journey with addiction and prison and then recovery as an older man (DeMio, 2019). The article explicitly discusses the racism central to the “war on drugs,” and the different narrative used now—to treat, not criminalize, people with addictions. The article also describes the abuse he experienced in his childhood and how that contributed to his addiction.

Narrative five: Childhood adversity leads to substance use; parental substance use leads to childhood adversity—At both time points, there was limited discussion around ACEs as a determinant of opioid/substance use. At Time one, this was almost non-existent in Detroit and limited in Cincinnati. These articles sometimes referred to trauma experiences in a defendant’s childhood to request more lenient charges. One human interest piece, described in the section above, directly linked substance use as an escape or coping mechanism from the negative psychological effects of childhood abuse (DeMio, 2019). More common was a narrative around opioid/substance use causing child abuse or death. For example, in an article on the indictment of the mother whose infant died due to suffocation, the reporter wrote: “This is a case which illustrates the hold drugs can take on people. This is a story that shows how, sometimes, not even a child comes before getting high” (Bierygolick, 2019).

At Time two, in Cincinnati, four articles mentioned all three topics: ACEs, SDOH, and opioids/substance use. Three of these articles featured specific community-based programs aimed at improving social and economic conditions for community members, including

addressing childhood trauma with behavioral treatment programs to support substance use treatment. Despite mentioning both ACEs and SDOH, all three articles discussed providing recovery and treatment services. Two articles mentioned social and structural factors in the context of supporting recovery (such as support for transportation, public insurance, food debit [SNAP EBT], housing, childhood education, etc.) but not in the context of preventing use or addressing the overall public health crisis. The fourth article was an op/ed that identified the connection between an accumulation of ACEs, alcoholism, and opioid use, describing the opioid crisis as “a crisis rooted in trauma”; calling for more state funding to address underlying determinants.

DISCUSSION

Findings from this study inform an exploration of the local context and narratives in the media in two mid-western cities that were project sites for the CDC-funded cooperative agreement *Comprehensive Community Strategies to Prevent ACEs and Opioid Misuse*. Overall, the dominant narrative about opioids/substance use in the media remained focused on criminal cases and other criminal justice milestones across both time points, consistent with previous research on opioids/substance use in the media (McGinty et al., 2016; Webster et al., 2020). McGinty et al. (2016) found that though there was a trend toward increasing mentions of prevention-oriented approaches over time, these articles remained in the minority while narratives about opioids as a criminal justice issue dominated (McGinty et al., 2016). We similarly found that despite increasing recognition of SDOH in relation to opioids/substance use narratives, accompanying solutions and prevention strategies proposed in the articles were still largely focused on individuals with secondary and tertiary prevention solutions (e.g., substance use treatment and connecting individuals to services) rather than shifting towards primary prevention.

The COVID 19 pandemic likely shifted attention away from the opioid crisis at Time two and limited the number of relevant articles included for analysis. However, some articles did connect the COVID-19 pandemic and the associated financial, mental, and physical strains as SDOH related to opioid use. This connection is important, as both the COVID-19 pandemic and the opioid crisis disproportionately impact mortality among groups that have been socially and economically marginalized (AHRQ, 2020; Artiga et al., 2020).

While not the norm, elements of narrative change strategies were evident in some articles that linked SDOH and opioid use (e.g., DeMio, 2019; Garry, 2021; Samuel, 2021). For example, some articles uplifted the story of people traditionally silenced in dominant narratives (e.g., people who use substances, people who are incarcerated) in a manner that explicitly humanized them. These articles also addressed structural factors that contributed to either their personal hardships (e.g., lack of public transportation to recovery services, incarcerated instead of provided treatment) and to community-level problems (e.g., the number of people who have been incarcerated for low-level offenses, the number of overdoses in a community, the impact of the COVID-19 pandemic). A call to action—or the discussion of effective ways to address the problem—were also included. Most related to increased access to either harm reduction programs or treatment and recovery services instead of incarceration; a very limited number also addressed economic conditions (e.g.,

jobs that provide a livable wage and benefits). These serve as examples of how narrative change strategies can increase conversations around strategies that improve health equity.

In our study, we found limited discussion of race, racial disparities, or racial discrimination in narratives about opioids/substance use. As such, these narratives failed to provide a complete understanding of the opioid crisis and the differential impacts on racial groups. The racialized dynamic of the response to overdose crises has been a focus of previous literature (Netherland & Hansen, 2016; Santoro & Santoro, 2018). The country's approach to addressing substance use epidemics has dramatically changed over time and is rooted in a history of racism and discrimination (Jones, 2021; SAMHSA, 2020; Santoro & Santoro, 2018). Racial discrimination within the healthcare system contributes to disparities in access to treatment and pain management, while racial discrimination in the criminal justice system contributes to the disproportionate rates of incarceration among non-white, and particularly Black, populations (SAMHSA, 2020; Santoro & Santoro, 2018). Additionally, previous research has found that media outlets over time have used contrasting framing for the opioid crisis depending on the population being discussed (Netherland & Hansen, 2016; Santoro & Santoro, 2018). This includes sympathetic narratives about prescription opioid use occurring in suburban white populations contrasted with stigmatizing narratives about urban Black and Hispanic injection drug users, largely in conjunction with discussions of criminal cases (Netherland & Hansen, 2016). As a result, these narratives reinforce a criminal justice approach for Black and Hispanic communities—contributing to over-policing of communities, inequitable representation in jails and prisons, severe barriers to care, and overrepresentation in the child welfare system, among other negative consequences—and a treatment approach for white communities (Netherland & Hansen, 2016; Santoro & Santoro, 2018).

In our analysis, the lack of discussion of race and racism may have also contributed to this narrative. For example, we found that newspapers generally did not report race or ethnicity in articles, which can be positive for avoiding stigmatizing narratives (especially in criminal cases). However, this practice makes it difficult to discern whether the narratives observed differ depending on the subject's race or ethnicity. Further, few articles reported on the racialized response to the epidemic and inequities in accessing care, which serves to minimize these problems. Additional work to shift narratives towards a greater understanding of structural racism and the way it presents across social structures and health outcomes, including ACEs and substance use, could lead to more nuanced and equitable media coverage of these issues (Netherland & Hansen, 2016; SAMHSA, 2020).

Media-based narrative change efforts often focus on opinion pieces or editorials—which can be important mechanisms for challenging dominant narratives and introducing transformative ones. In addition, those engaged in narrative change efforts may also consider engaging with reporters and other members of the media to provide suggestions regarding the coverage of the opioid and substance use crisis. News articles also have narrative elements based on who is interviewed, what information is included, if regional trends are covered, and if policy-based solutions are discussed. Working with reporters to include these elements can be especially important for local reporters in their coverage of community events and local policies. Many media outlets also rely heavily on 'wire' articles. Engaging

with those outlets can also have a wide-reaching impact. Media guides have been created for opioid use to avoid stigmatizing people who use substances (e.g., avoiding words like “addicts”); additional guidance could include information about the structural determinants of the epidemic and the role of childhood adversity in substance use (IHRC, 2019). Media guides have been created for similar efforts in covering sexual violence (CDC, n.d.). As the media not only influences dominant narratives but reflects back local narratives, social media campaigns and transformational narrative change activities within communities and community organizations (e.g., nonprofit organization advocacy efforts, internal capacity building in local public health departments, etc.) can also serve to shift narratives (Harper et al., 2024; Haapanen et al., 2023).

This study is subject to several limitations. First, the coders did not live in the mid-western region and, therefore, may not have recognized narratives or language specific to the local context. For discussions of race and ethnicity specifically, the coders may have missed nuanced language that is locally specific; although this lack of knowledge may have been advantageous to allow for an unbiased and objective review of the articles. Coders may have also missed patterns in how stories were reported, based on race and ethnicity, as race and ethnicity were generally not reported (e.g., articles on Black people who used substances focused on criminal cases vs. articles on white people who used substances focused on stories of recovery or resilience). Moreover, this study is limited to newspaper media and does not include TV media, internet, social media, and so forth, and, therefore, the findings do not represent media at large. Next, the coders differed for Time one and Time two; additionally, one coder completed all coding for Time one, while two coders completed the coding for Time two. While no intercoder reliability was measured, all coders were trained on the narratives relevant to the larger project, the use of the codebook, meeting regularly to discuss coding, and discussing any “difficult” articles to achieve consensus in an effort to increase consistency between coders. Finally, additional keywords were used to generate the sample of articles at Time two, which may have biased the sample. However, all keywords from Time one were included in Time two, and the authors restricted the analytic sample to only articles relevant to substance use. As such, we believe the differences between the two analytic samples should be limited.

Despite these limitations, we believe this research is meaningful for the larger literature. While narratives can operate at a national level, local narratives are extremely powerful in influencing local responses. In the context of the opioid and substance use crisis, local narratives can influence support for local policies regarding primary prevention of ACEs and substance use, harm reduction strategies, access to treatment, criminal justice responses to substance use, and more. Further, the historical and current social, political, and economic context of each community will also deeply influence these narratives and responses. As such, we believe that focus on individual communities provides important nuance to the larger literature base of research on narrative and opioid use.

CONCLUSION

For complex health issues such as opioids and substance use, local narratives can influence how communities invest in their response and prevention strategies. The formal media

remains an important dissemination strategy for transformational narrative change work. Results found that narratives regarding childhood adversity and SDOH remained largely missing in media coverage of substance use. Furthermore, substance use narratives focused mostly on response (e.g., treatment and law enforcement) and less on prevention. Efforts to shift narratives about opioids/substance use and ACEs towards a greater understanding of the impact of SDOH on these outcomes can build support for comprehensive, primary prevention efforts. Addressing the root causes driving observed trends in substance use is critical to promoting safe, stable, nurturing relationships and environments for children and their families.

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Highlights

- A common type of media coverage was on criminalization and other downstream prevention strategies.
- Narratives about the primary prevention of adverse childhood experiences and substance use were limited.
- The formal media remains a largely untapped dissemination strategy for narrative change work.

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	Why opioid misuse happens	How to solve it	Example	Count
LEVEL OF DOMINANCE DOMINANT.....ABSENT	Bad decision-making	Criminalization, education about drug use	"A Walnut Hills man has been sentenced to five years in prison for his child's death from ingesting fentanyl, court documents state," (Bentley, 2021).	Time one: 75 Time two: 11
	Addiction is an illness	Treatment, harm reduction	"We need all the options for people to get safe injection supplies, safe smoking supplies, fentanyl test strips and Narcan so they can stay alive," (DeMio, 2021b).	Time one: 50 Time two: 4
	Accessibility/strength & addictiveness of drugs	Regulation of prescriptions, holding pharmaceuticals accountable, criminalize people selling drugs	"When patients are overprescribed these addictive drugs, they can easily become addicted, or unused pills accumulate in their house, putting their family members at risk. Although I think this drug takeback program is great, the real problem starts at the clinicians' office where people are getting too many drugs too often," (Stevens, 2021).	Time one: 19 Time two: 6
	Social determinants of health (e.g., lack of economic opportunities)	Lift entire communities out of poverty, invest in community-level infrastructure (education, transportation, etc.)	"As COVID-19 continues to wreak havoc on all of our lives, it has become clear that the impact of the pandemic has not been felt equally...The added stress and extreme isolation, combined with financial and job losses, have led even more people in Hamilton County to addiction or worsen the addiction in those who may be predisposed," (Sanders, 2021)	Time one: 5 Time two: 14
	Adverse childhood experiences	Enact family-friendly policies (e.g., living wages, paid maternity leave, expanded access to TANF, etc.)	"Drug use by victims of childhood trauma is a common way of self-medicating. Why not fund a solution to help eliminate the root cause of many opioid addictions? Why are we not funding the solutions to reduce and address untreated childhood trauma?" (Hummons, 2021).	Time one: 4 Time two: 5

FIGURE 1. Narratives about opioids/substance use in Detroit and Cincinnati articles (Time one: $n = 209$; Time two: $n = 44$) and their level of dominance. Time one: March 1, 2019–June 1, 2019; Time two: March 1, 2021–June 1, 2021. Level of dominance is an indicator of the commonality of narratives identified. Total counts will not equal the total number of included articles, as some articles were categorized as identifying multiple narratives (e.g., human interest/feature articles, reporting on trends without commentary). Quoted articles: Bentley (2021); DeMio (2021b); Hummons (2021); Sanders (2021); and Stevens (2021).

TABLE 1

Time one and Time two media scan summary.

	Time one	Time two ^d
Dates Included	March 1, 2019–June 1, 2019	March 1, 2021–June 1, 2021
Search terms used	(“Opioid”) OR (“addiction”) OR (“overdose”) OR (“heroin”) OR (“drug”) OR (“substance abuse”) OR (“Fentanyl”) OR (“Prescription painkillers”) OR (“Prescription pain relievers”) OR (“Fentanyl”) OR (“Prescription pain pills”) OR (“Non-medical use of prescription”) OR (“Substance misuse”) OR (“Recreational opioid use”) OR (“Methadone”) OR (“Buprenorphine”) OR (“Injection drug use”).	(“Opioid”) OR (“addiction”) OR (“overdose”) OR (“drug”) OR (“substance abuse”) OR (“heroin”) OR (“Fentanyl”) OR (“Prescription painkillers”) OR (“Prescription pain pills”) OR (“Non-medical use of prescription”) OR (“Substance misuse”) OR (“Recreational opioid use”) OR (“Methadone”) OR (“Buprenorphine”) OR (“Injection drug use”) OR (“Juvenile justice”) OR (“Criminal justice”) OR (“Restorative justice”) OR (“Criminal justice reform”) OR (“School to prison pipeline”) OR (“Decriminalization”) OR (“Judicial Waiver”); (“Early childhood education”) OR (“Early education”) OR (“Free childcare”); (“Racial justice”) OR (“Reconciliation”) OR (“War on drugs”); OR (“Segregation”) OR (“Redlining”) OR (“Divestment”) OR (“Environmental justice”) OR (“Environmental injustice”) OR (“Disenfranchisement”) OR (“Poverty”) OR (“Intergenerational Poverty”); (“Neighborhood development”) OR (“Gun range”)
Search engine	ProQuest/US Newsstream	ProQuest/US Newsstream
Newspapers included	<i>Detroit Free Press</i> ; <i>Cincinnati Enquirer</i>	<i>Detroit Free Press</i> ; <i>Cincinnati Enquirer</i>
Exclusion criteria	Non-English language articles; obituaries; duplicates	Non-English language articles; obituaries; duplicates
Number of articles reviewed	466	641
Number of articles excluded	257	597
Total number of articles included by site	Cincinnati: 159 Detroit: 50	Cincinnati: 34 Detroit: 10

^dThe Time two analytic sample was restricted to only include articles related to substance use despite the addition of search terms related to social determinants of health.