MORAL FAILING, MEDICAL MENACE, SOCIETAL SCOURGE: MEDIA NARRATIVES OF AMERICA'S OPIOID EPIDEMIC

Elizabeth Troutman Adams

A dissertation submitted to the faculty at the University of North Carolina at Chapel Hill in partial fulfillment of the requirements for Doctor of Philosophy in the Hussman School of Media and Journalism.

Chapel Hill
2020

Approved by:

Brian G. Southwell, Chair

Maria Leonora Comello

Daniel Riffe

Mara Buchbinder

Daniel Hallin

Lawrence Greenblatt

ABSTRACT

Elizabeth Troutman Adams: Moral Failing, Medical Menace, Societal Scourge: Media Narratives of America's Opioid Epidemic
(Under the direction of Brian Southwell, Ph.D.)

Every day, 128 Americans die from an opioid overdose. In the past decade, the menace of opioid misuse and abuse has remained a prominent and perplexing public health concern with no clear resolution. The federal government declared a national emergency in 2017, allocating funds to programs and prevention, yet overdose deaths continue to escalate.

Stories told through media sources give texture, nuance, and symbolic meaning to America's opioid "epidemic." Opioid narratives circulating through media sources influence cultural understandings and shape collective knowledge about the people, places, and costs of opioid addiction in America. Through this dissertation, I describe the narratives of opioid addiction constructed and transmitted through various media discourses: at two levels of news media coverage, in a mass media health campaign, and in opioid overdose obituaries published online. I also question whether these narratives have permeated the protected and consequential sphere of patient-provider communication. I further explore how media discourses project an ideology that dictates who is authorized to speak about and receive knowledge and specialized information about opioids, or a model of biocommunicability. I evaluate the extent to which media discourses reflect a biomedical rendering of opioid addiction or reify a stigmatized

illustration of opioid addiction that imperils public health efforts to normalize medical treatment for opioid use disorder (OUD).

To Michael Wayne Troutman (Dad)
For your wisdom and counsel. Your enduring words continue to illuminate a path forward.

To Marilynn Wayne Troutman (‘M’)
For your poise, your intellect, and your reverence for knowledge.

To Clara Marie Adams
My darling, you are a bright light that radiates joy. You are my greatest accomplishment and hope for a kinder world.

ACKNOWLEDGEMENTS

I am deeply indebted to exceptionally kind and generous mentors and fellow scholars who guided my direction, challenged my thinking, and encouraged me to stay committed to the processes of completing this dissertation.

Dr. Brian Southwell, I am grateful for your willingness to take me on as an advisee, to dedicate your time, your intellect, and your energy to my development as a scholar. Thank you for putting this dissertation in perspective – one that takes into account my family and personal wellbeing – and for believing in my worth and potential as a communication scientist. It has been a joy and a gift to have the opportunity to learn from you these past couple of years.

My sincere gratitude to the members of my committee who contributed their time and expertise to the project. Dr. Riffe, thank you for entertaining my infinite questions about content analysis and reliability, even if they happened to arrive in your inbox on a Friday night. Dr. Comello, thank you for guiding me through an exploration of narrative theory, which has been essential for the completion of this dissertation., and for being a constant source of positive energy throughout my graduate program. Dr. Buchbinder, thank you for introducing me to an enriching body of work that brings together linguistics, anthropology, and media studies. Dr. Hallin, thank you for your marvelous book, which I have consulted daily during the construction of this dissertation. Dr. Greenblatt, thank you for agreeing to assist with my health-care provider

survey on a whim, and for bringing the invaluable perspective of a medical provider to this project.

I would not have been able to finish the content analysis without Dr. Trevor Bell's dedication and enthusiasm. Thank you, Trevor, for being a dependable and loyal research partner, as well as a good friend. I also owe considerable thanks to Justin Kavlie, who always kept his office door open and never turned me away when I needed to think through a research idea.

Thank you to Dr. Elisia Cohen, my master's thesis advisor, who sent me down this rewarding career path and has always advocated for me.

Thank you to my husband Shawn, who took a risk when he agreed to uproot our comfortable careers and lives so I could pursue a doctorate. Thank you for your constant reinforcement and affirmation, and for forcing me to take breaks to enjoy our lovely daughter. I could not have accomplished this dissertation without your love, humor, and constant devotion.

Thank you to the Roy H. Park Family for providing a fellowship to support my graduate studies.

TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

CHAPTER 1: INTRODUCTION

On August 8, 2019, *The Washington Post* published an online series of multimedia vignettes titled "The Opioid Files." The opening slide depicts a bird's eye image of the Appalachian Mountains, with puffs of fog skimming across the evergreen treescape.

As the viewer scrolls down through consecutive slides, a visually compelling narrative about the opioid epidemic in Southwest Virginia unfolds. Each slide bears a still image or moving video footage of Appalachia's desolate landscape: a wavy turnpike scaling down a mountainside, an abandoned storefront display, a railroad crossing halting midtown traffic, and a family posing for a portrait atop the cracked concrete of a mobile home park. At the center of each scene-setting backdrop, a snippet of text communicates a tragic and complicated narrative about a geographic location regarded as the epicenter of a national health epidemic. The stories speak to a population inhabiting this remote location and the lethal – and legal – substance that quietly, craftily infiltrated and ravaged communities through cunning pharmaceutical salespeople and compliant physicians. As one slide states: "This was a remote part of America. But not out of reach of the drug industry."

The *Post's* interactive storytelling series introduces a cast of characters in the opioid epidemic: a profit-hungry pharmaceutical company, a community nurse who became addicted to opioids while receiving treatment for kidney stones, a tough drug enforcement agent who "busted" the first heroin dealers to prey on his community, and a part-time McDonald's employee and father-of-four finding a renewed sense of purpose in addiction recovery. These stories portray residents as victims who succumbed to opioid addiction, the pharmaceutical

industry as an intrusive force that brought drugs into vulnerable communities, doctors as accomplices to Big Pharma who facilitated the spread of addiction, and public health, government, and law enforcement officials as heroes who organized and mobilized resources to halt further destruction. These singular stories converge to give texture and symbolic meaning to a cultural narrative about the opioid epidemic – a canonical narrative that circulates through media sources and reifies cultural understandings and collective knowledge about the people, places, and costs of opioid addiction in America.

Opioid addiction is a convoluted subject that crosses diverse disciplinary domains and intersects with many aspects of social life. As such, its threat has become an issue of public relevance and concern. Narratives about the causes, consequences, and magnitude of the opioid problem in American society emerge from disparate sources and contexts, eventually being swept toward the public sphere in the media stream.

Through this dissertation, I attempt to bring order and clarity to the cacophony of discourses intertwined in the narrative of America's opioid "crisis" (Carr, 2019). I will argue that multiple competing narratives are swept up in a stream of media sources, which are fed by many conduits of information and flow through various channels, resulting in a variety interpretations and impressions (Goode, 2005). The discourse of America's opioid epidemic is unique in that it is not dominated by one authoritative figure or field of expertise but rather engages actors from discrete institutions and fields, including law enforcement, the legal system, health care, immigration, public health, pharmacology, and economics, as well as many forms of government. These stories imbue the phrase "opioid epidemic" with distinct meanings and significance, informing public perceptions, knowledge, medical protocol, and policy action. Disparate opioid epidemic narratives circulate into social contexts where stories become a basis

for decision making. Thus, a person's understanding of a complex and ever-evolving social crisis depends on the version of the story that flows into his or her social networks. For instance, an opioid narrative circulating to subscribers of a daily Appalachian newspaper may diverge substantially from coverage of the same topic in *The New York Times*, a newspaper closely monitored by political elites.

The cacophony of opioid narratives in American culture is relatively innocuous until elements of a narrative are enacted as cultural truths. In social contexts that depend on shared understandings and congruent information to guide decision making – for instance, medical consultation or policymaking – opposing opioid narratives might impede collaboration and thwart policy action to finally reverse the crisis. While the narrative of the opioid epidemic will inevitably vary from discourse to discourse, understanding how certain information sources produce specific kinds of opioid narratives will garner insight as to why those with authority and power might see different forces and factors driving the epidemic.

Once opioid narratives are ingrained in our cultural repertoire, they become consequential. According to social representation theory (Moscovici, 2000), individual beliefs and perceptions are galvanized by the social discourses that take place within a community, and new information must resonate with existing community discourses and social knowledge. Macro-level patterns in media content can render insight into a population's shared knowledge about a public issue (Southwell, 2005). In an application of social representation theory, Hwang and Southwell (2009) found the mere presence of high-quality scientific programming in a local television news market predicted the population's perceptions of science as relevant and accessible. Thus, I surmise that the type of opioid narrative a media outlet broadcasts will

influence its consumers' social knowledge and perceptions of opioid addiction, specifically the causes and magnitude of devastation wrought by the epidemic.

Social scientists have used a variety of theoretical premises and methodological approaches to investigate the impact of narratives on social knowledge and behavior (Garro & Mattingly, 2000). Rather than evaluating the merit and veracity of each of these concepts and approaches, I will embrace a variety of perspectives, definitions, and methods in undertaking the task of juxtaposing the opioid narratives in different social discourses. In the spirit of multidisciplinary research, I will employ both quantitative and qualitative methods to describe elements, qualities, and dimensions of narrative, sampling theoretical perspectives from overlapping narrative literatures, including public health, medical anthropology, sociology, media studies, and persuasion.

By describing how different opioid narratives manifest in disparate contexts, media venues, and influencers along the flow of information to the public sphere, I will provide an explanation as to how the story of opioid addiction has become problematic, muddled, and contested at sites of deliberation, intervention, and consequence.

Epidemic, Emergency, Crisis, Catastrophe: Naming America's Opioid Problem

Opioids are now more deadly than car crashes, causing more than 132 overdose deaths every day (U.S. Department of Health and Human Services, 2020). The Centers for Disease Control and Prevention (CDC) ranked prescription drug misuse as one of the top-10 modern health concerns and the agency's director called the epidemic the "public health crisis of our time" (CDC, 2018). National Institutes on Drug Abuse (NIDA) Director Dr. Nora Volkow reported that opioid addiction takes a toll on individual lives, families, communities, and the national economy, removing individuals from a productive workforce and placing a $78.5 billion burden on the U.S. health-care system (Volkow, 2017). Opioid overdose is a tragic and senseless death, as victims are in their "prime of life," according to Volkow.

In 2018 more than 10.3 million Americans misused an opioid prescription, two million struggled with opioid use disorder, and more than 47,000 died from an opioid overdose (HHS, 2020). Both the Obama and Trump Administrations vowed to take action to resolve the epidemic, with the current administration declaring a state of national emergency in 2017 and calling the epidemic the "worst drug crisis in American history" (The White House, 2017). Despite such commitments at the federal level, rates of opioid overdose death have continued to rise every year, culminating in nearly 450,000 deaths since 2000 (CDC WONDER, 2020).

Epidemics as Social Constructions

Politicians, public health officials, medical institutions, health-care practitioners, and the mass media have classified the prevalence of prescription opioid and heroin abuse and overdose in America as an "epidemic" (HHS, 2020; CDC, 2020) and a "crisis" (National Institute on Drug Addiction, 2020). The World Health Organization (WHO, 2020) defines an epidemic as an occurrence characterized by the excessive or above "normal" instance of an illness or a behavior-

related health condition within a particular community or region. Meaning "upon the people," the term epidemic configures a problem to a population (Carr, 2019) and denotes the presence of imminent, unexplained danger (Rosenberg, 1992).

According to Rosenberg (1992), epidemics are grouping phenomena founded on the perceptual distinction between societal members who exhibit symptoms and experience outcomes and those who do not. He claims the media often misuse the term 'epidemic' to cloak "some undesirable but blandly tolerated social phenomenon" in the same sense of urgency associated with a 'true' epidemic (p. 279). Rosenberg insists that true epidemics are *episodic*, characterized by the intrusion of foreign agents, usually contagion, and bound in place and time. National rates of drug overdose, car crash fatalities, or suicide reflect domestic patterns and trends that are *endemic* to American society, and therefore are not inherently epidemic events. Thus, the labels "epidemic," "emergency" and "crisis" are strategically employed to transmit a sense of salience and urgency to the mass public.

Similarly, Wald (2009) explained how the outbreak narrative emerged as a "logical technology" for orienting an invasive disease to a population, place, and historical moment. The contemporary outbreak narrative serves a utility to epidemiologists and journalists alike, providing an explanatory backlog that traces contagion to a point of entry or carrier, who comes to be known as "patient zero." In addition to locating a point of origin, the outbreak narrative tracks the spread of disease through social networks, chronicles the heroic efforts of epidemiologists and medical workers, and concludes with a satisfactory containment of the contagion made possible through coordinated public heath efforts and population compliance.

Scholars have debated whether the rhetoric surrounding the opioid epidemic accurately captures the surge of overdoses claiming American lives. From anthropology, Carr (2019) asked

why politicians, public health officials, and mass media have chosen the word "opioid" to qualify the current drug crisis. Rather than defining the crisis by its object of abuse (opioids), she pondered whether scholars might reconstitute the phenomenon as an economic crisis of the white working class, a crisis of the pharmaceutical industry, or an over-prescription crisis of the American medical system. She argued that the naming and framing of a particular kind of problem shapes how it will be "understood, worked upon, and treated in the world" (p. 165).

Similarly, Treichler (1999) urged social scientists to attend to the social dimension of epidemics. She asserted that epidemics are at once biomedical events and human dramas; epidemics live a "dual life" as both material and symbolic realities. As a linguistic construction, the label 'opioid epidemic' materializes from the discourses of science, public health, and medicine, thus making America's opioid problem intelligible, discernible, and workable from a public health standpoint. In studying early media reports of HIV/AIDS, Treichler concluded that AIDS was as much an epidemic of signification as an epidemic of a deadly transmittable virus. The social and biological dimensions of HIV/AIDS were equally as crucial for understanding how the public interpreted and responded to the disease. In the case of AIDS, a plethora of competing media narratives contributed to a "chaotic assemblage of understandings" (p. 11) about the epidemic, including the beliefs that AIDS was contractible through casual touch or was a "gay plague." To resolve a health-related crisis, scholars, activists, and experts must attend to stories told through the mass media that become ingrained into a cultural framework.

Narratives and Cultural Production

Since antiquity, humans have shared a natural proclivity for relating to one another by performing, exchanging, and interpreting life experiences (Fisher, 1987). Formulating a narrative is an interpretive act requiring retrospection, sequential ordering, and imagination, as the

storyteller reconstitutes a series of events based on a subjective and partial view of reality. Narratives are logical and didactic communication tools that convey a purposive message, statement on human morality, or instructions for living (Schank & Berman, 2002).

The humanities and social science disciplines – from literature and anthropology to social psychology and communication – have offered a variety of conceptual definitions and theories to explain how narratives are assembled and function in social life. Fisher proposed a "meta-" paradigm to resolve conceptual discrepancies across fields of thought and disciplines, defining narrative as symbolic actions that have sequence and meaning for those who live, create, or interpret them (1987, p. 4). In a spirit of interdisciplinary scholarship, I will sample from the amalgam of knowledge, theory, and perspective on narrative accumulated across social scientific disciplines throughout this dissertation. To orient narrative to cultural understandings of opioid addiction, I ground the study in Wald's (2009) conception of the macro-level, or "paradigmatic," *narrative* as a convention or framework to understand how an emerging or ongoing health issue is being addressed in society. At another level, according to Wald, micro-level *narratives* of human lives entangled with the health threat influence both the scientific and public understanding of the nature of opioid addiction. In this dissertation, I will consider a thematic or overarching narrative of the opioid epidemic in American discourses but also attend to the micro-level narrative, or episodic, individual stories of addiction that shape understandings of opioid addiction in different social discourses.

From medical anthropology, scholars have explored how individuals and communities rely on stories to make sense out of ambiguous, threatening, or inexplicable life experiences or circumstances. Kleinman asserted that narratives enable illness survivors to craft a coherent and "serviceable" explanation (1988, p. 43) for an experience fraught with uncertainty and pain.

Narratives also reinforce socially acceptable ways of thinking about and acting on illness. From the social psychological perspective, Bruner (1986) defined narrative as a fundamental mode of thinking that merges an inner landscape, or the actions that take place within a storyworld, and the landscape of consciousness, which represents expectations and understandings gained from participating in an external social and moral world. Narratives represent a conceptual bridge between cultural and personal experience, individual and generalizable knowledge (Garro & Mattingly, 2000). Health and illness, suffering and healing, risk and reward are all topics understood through a repertoire of cultural and historical knowledge assembled within a social context.

Contemporary anthropologists conceptualize culture as a "negotiable" and "collective" product of social participation – an evolving set of rules, practices, values, rituals, customs, prohibitions, and other tools necessary for engagement in a social world (Estroff & Henderson, 2019). As a field of cultural production, mass media, and more specifically health journalism, relies on storytelling to construct a version of reality and make complex medical issues more accessible to the lay public (Dahlstrom, 2014; Tuchman, 1978). Often the version of reality constructed by the media is viewed as skewed, biased, or otherwise problematic.

Wald (2009) argued that journalists and entertainment media producers adhere to a formula for epidemic storytelling through the repetition and recirculation of certain phrases, images, and storylines. In substantiating "regimes of truth," the media recapitulate familiar representations of an issue in a never-ending cycle, giving scant attention to alternative explanations or interpretations (Treichler, 1995). Treichler described a cycle of stories promulgating the assumption that AIDS was an affliction isolated to the gay community, a storyline that media audiences came to expect in early news coverage of the epidemic.

Rosenberg (1992) also assessed the media climate during the AIDS outbreak, concluding that news coverage simultaneously exaggerated the risk and underrepresented the scope of the epidemic. Media representations of the opioid crisis emit a cacophony of cultural meaning and significance, as multiple narratives from distinct social contexts intersect and compete for legitimacy.

Health News Production

In the process of opioid news production, the media industry overlaps with other social fields, including clinical medicine, psychiatry, addiction recovery, social work, law enforcement, the court and punitive system, policymaking, the pharmaceutical industry, marketing, and economics. As a field of cultural production, journalism permeates the borders of other social arenas and intellectual territories, thus influencing the practices and knowledge within those fields (Benson, 2010). Health journalists work in a reciprocal capacity with information subsidiaries, including medical experts, scientists, and public relations professionals, and their articles are products of cultural resources and ongoing negotiations with their subsidiaries (Nelkin, 1995). Thus, media narratives function as both a source and product of culture.

Public health officials serve as sources of data and rely on journalists to report on the data, while journalists rely on public health officials to help frame their stories about emerging disease. Charles Briggs and Clara Mantini-Briggs (2004) observed the relationship between public health officials and journalists in their ethnography of a cholera outbreak on the Venezuelan Delta Amacuro. Public health officials and global journalists worked in concert to perpetuate a narrative that linked cultural attributes of the indigenous Warao people to the spread of cholera. On the ground at sites of medical care and decision making, the researchers saw that

public health officials and practitioners working to contain the epidemic adopted this "official" rhetoric, associating cholera to *indigenas* customs, rituals, and behaviors.

In studying early media coverage of the AIDS epidemic, Treichler (1999) observed the entanglement of multiple narratives emanating from an array of contexts and sources, which resulted in mass confusion and misinformation about the risks of contracting HIV. The media proliferated stories of people contracting AIDS through casual contact and explained AIDS as a plague of the gay community, nature's way of cleansing society. Treichler called for an "epidemiology of signification" that traces the production and distribution of cultural narratives, which form a basis for "facts" that guide health-care regulations, policies, practices, and interventions. As with the AIDS epidemic, journalists attempt to give order and meaning to the opioid epidemic by invoking familiar or pre-existing explanatory frameworks for understanding the spread of disease.

Health communication scholars typically examine media from a linear-reductionist perspective, which assumes the straightforward transmission of health information from biomedical experts to health-care consumers (Briggs & Hallin, 2016). These scholars are concerned with distortions in the news media and seek to locate inconsistencies between media representations and the "reality" of health risks and disease, thus explaining gaps in health behavior as the consequence of media inaccuracy. Some health communication scholars juxtapose media storylines with those stories being advocated and disseminated by public health or biomedical experts. For instance, Carducci et al. (2011) found a disparity between news coverage of sensational and alarmist health topics and news coverage of health issues with the greatest epidemiological consequences. Using genetics graduate students to rate press releases and news article accuracy, Brechman et al. (2011) found that "slippages" in information

accuracy occurred as information traveled from scientific sources through press releases and to the media sphere.

In contrast to linear-reductionists, social constructionists view journalism as integral to the production and dissemination of cultural knowledge and attempt to understand the processes by which media narratives become enfolded into a cultural repertoire of knowledge (Lupton, 1995). According to Briggs (2011), disease trends, outbreaks, epidemics, and other health scares become spectacles of public concern through media representations. Journalists serve as information brokers between the public and biomedical authorities (Nelkin, 1995), but their stories are reconfigured and transformed along multiple registers en route to an imagined consumer, the neoliberal subject (Briggs & Hallin, 2010).

In their book *Making Health Public*, Briggs and Hallin (2016) rejected the linear-reductionist assumption that the news media passively transmit health information. Their analyses of health news covering the H1N1 outbreak and the Ebola virus demonstrated journalists' active role negotiating information among competing constructions of biomedical knowledge, ultimately building a narrative that represents and advocates for the position of biomedical authority. It is unclear whether opioid news reflects scientific veracity or favors alternative sources and perspectives outside the field of biomedical expertise.

Biocommunicability

According to Lupton (1995), discourses on health and illness serve as routes through which people "understand, think and talk about, and live our bodies" (p. 6). Through health promotion discourses, public health experts normalize the subject of health information, the "productive" citizen who regulates his body by making rational choices in accordance with state-sanctioned health recommendations. Health promotion discourses constitute a neoliberal subject

who values personal autonomy, healthiness, knowledge, and continual self-improvement (Lupton, 1995). Through the paternalistic discourses of "empowerment" and "education," health promotion messages address an American health-care consumer as someone who is culpable for his own behaviors and therefore responsible for his health outcomes. Health promotion messages turn the consumer's gaze inward by motivating individual action to achieve the highest attainable level of health. The health consumer, not the government, health system, workplace, or other social structures surrounding him, is expected to act as an agent of change.

Informed by two theoretical perspectives, Foucault's theory of biopolitics with Clarke et al.'s (2003) concept of biomedicalization, Briggs and Hallin (2007) formulated the biocommunicability framework to explain the various ways health news conveys an understanding and projects the assumption that consumers are expected to act in accordance with health recommendations to preserve their own wellbeing. The *biocommunicability* concept answers questions regarding who gets to narrate, whose narratives become authoritative, which narratives circulate and through which channels, who gets to circulate them, and which stories influence practices and policies. On the surface, opioid news stories communicate information about a complex health issue, while on another dimension, they project a set of assumptions about who is authorized to receive, speak about, and act on opioid information.

Biocommunicability describes how health information is assembled and shaped by various actors, flowing through various communication channels en route to the imagined receiver, the neoliberal subject. Briggs and Hallin (2007) contended that media stories are embedded with a roadmap, or a communicative cartography, which projects the movement of information through an intricate network in a process that constitutes a neoliberal subject at the receiving end of communication. To understand the symbiotic relationship between culture and

media, scholars must locate critical junctures along the health information trajectory where "such determinations occur and meaning is created" (Treichler, 1999, p. 11).

Problematizing Opioid Epidemic Narrative

In the process of creating and distributing opioid narratives, mass media sources, including news media and public health campaigns, have promulgated multiple competing interpretations and explanations for America's opioid crisis. I argue that these competing frameworks filter down to consequential discourses, including family life, medical treatment, and public health campaigns. In laying the groundwork for the theory of communicative action, Habermas (Goode, 2005) conceptualized discourse as a type of speech act that appeals to audiences through validity claims including truthfulness, appropriateness, and sincerity of the speaker. Media narratives filter down to practical discourses that occur in everyday life, thus having an indirect yet profound influence in a variety of social contexts. Such contexts include medical consultation, where patients bring assumptions and concerns about the safety and risks of opioid use to pain management discussions, and the private lives of families interpreting meaning from a seemingly "senseless" overdose death.

Medicalization and Stigmatization of Opioid Addiction

During the late twentieth century, medical sociologists observed that scientific discovery and innovation reconfigured and reallocated numerous moral and legal issues to the medical domain (Clarke et al., 2003). Through medicalization, drug addiction, sexuality, abortion, and alcoholism became the primary concern of biomedical authorities who attribute these conditions to molecular activity, not moral restraint. A second wave of medicalization, biomedicalization describes the elaborate expansion of medical jurisdiction to new social forms through technoscientific transformation. As technoscientific innovations in the early part of the twenty-

first century evinced the neurobiological mechanisms underlying addiction, the National Institute on Drug Abuse advanced the brain disease paradigm, which constitutes addiction as a chronic, relapsing brain disease onset by habitual substance use (Volkow et al., 2016). The definition has been controversial, as it casts addiction as a biologically rooted and clinically treatable dysfunction rather than a moral weakness or consequence of a person's desire to "alter consciousness" (Hammer et al., 2013).

Although biomedical experts have described opioid addiction as a neurobiological disorder, the American public is reluctant to accept the brain paradigm definition of addiction. Medical providers define opioid use disorder as a recurring, relapsing, chronic health condition diagnosed by the presence of at least two of 11 criteria including giving up important life events to obtain opioids, episodes of withdrawal, an increasing need for or diminished effect of opioids, and persistent unsuccessful efforts to reduce opioid reliance (Schukit, 2016). Yet, most Americans fault individual opioid users – followed by physicians – for the opioid epidemic (Barry et al., 2016). More than a third of participants in a nationally representative survey disagreed that addiction is a "medical illness like diabetes" (Lefebvre et al., 2019).

Public health experts contend that mass media exacerbate stigma by misrepresenting opioid addiction as a criminal justice issue and undermining the effectiveness of clinical therapies to manage the condition. In a content analysis of opioid news coverage from 2002 to 2012, McGinty et al. (2016) concluded that news media reinforced stigmatizing beliefs about people who abuse opioids. More than two-thirds of articles in their analysis focused on the criminal behavior of an individual with an opioid use disorder. Of the stories that mentioned a solution to the opioid epidemic, 64% proposed law enforcement measures while less than 3% proposed medical intervention. In another study, Kennedy-Hendricks et al. (2017) found stigma

toward people with prescription opioid use disorder was negatively associated with support for medical treatment for OUD but positively associated with punitive policies to address opioid use. In a subsequent analysis of news coverage, Kennedy-Hendricks et al. (2019) found that local news coverage of the opioid issue in states with high rates of misuse focused on the negative consequences of medication-assisted therapies.

Stories at the Appalachian Epicenter

Pervasive stigma is one barrier that poses resistance to public health efforts aimed at reducing high rates of opioid addiction in Central Appalachia. Community members have likened opioid addiction to leprosy, and institutions best equipped to intervene and offer assistance, such as local governments, churches, and workplaces, staunchly avoid the topic (ARC, 2018). In Appalachia, the story of addiction is bound to a range of factors, such as a stunted economy, high levels of poverty and reliance on government assistance, the cultural acceptance of opioid use, opioid prescription rates persistently higher than the national average, and a dearth of health-care providers willing to treat addiction with evidence-based therapies. Emory University researchers found that a quarter of pharmacies they investigated in 12 Kentucky counties denied buprenorphine access to people with valid prescriptions (Cooper et al., 2020). A focus group of Appalachian subject-matter experts indicated that local and national media attention to the issue has improved awareness of the opioid epidemic in Appalachian communities. The Appalachian epidemic narrative reflects a complex issue that involves an array of social, cultural, environmental, and economic contributors specific to a geographic region. It is worth asking whether the narrative of addiction differs between local and national news sources.

Distrust in the Medical Profession

In *Dreamland,* journalist Sam Quinones (2015) described the proliferation of "dirty doctors" and "pill mills" in Appalachia, singling out the case of David Procter, the convertible-driving doctor who famously catered to the pain patients in Portsmouth, Ohio. Like Quinones, many authors and journalists have highlighted the medical profession's role in the opioid epidemic in Appalachian valleys and beyond. National news media have followed criminal and court cases of doctors who injudiciously overprescribed or misappropriated opioids to vulnerable patients. In a 2015 interview with CSPAN, Andrew Kolodny, a prominent figure in the opioid crisis and the founder of the advocacy group Physicians for Responsible Opioid Prescribing, warned patients against trusting doctors, recalling the case of a doctor who prescribed the equivalent of a "heroin pill" to a teenager (Anson, 2017). News media and health campaign narratives frame physicians as oblivious victims of manipulative marketing ploys, indiscriminate enablers of opioid addicts, and unethical accomplices to the pharmaceutical industry.

Storylines portraying doctors as the culprits of the opioid epidemic may disrupt an equilibrium of trust and respect between patient and physician in medical consultation. Street's (2003) ecological model situates the medical consultation as a "dynamic, creative, and socially constructed event" (p. 64) in which the patient and provider exchange health-related information, share the decision making process, and establish or maintain a relationship characterized by trust, rapport, and respect. The patient and provider bring disparate predispositions, cognitive-affective states, and styles of communication to the medical encounter. Previous research has established that the issue of prescription opioid monitoring has obstructed physicians' efforts to deliver care that truly resembles patient-centeredness (Adams et al., 2020).

Positioning medical professionals as the problem-solvers and true "victims" of the opioid epidemic, Massachusetts surgeon Dr. John White listed a variety of perpetrators, including pharmaceutical companies, drug traffickers, "pill mill" operators, and patients themselves. In an editorial for *Pain Medicine News*, he characterized the nation's plight to resolve the epidemic as an "asymmetrical warfare" in which well-intentioned physicians, national health agencies, law enforcement and legal officials, and emergency workers are opposed by "an unsavory collection of criminals, smugglers, unethical physicians, deceitful pharmaceutical companies and vulnerable abusers" (White, 2019). He writes:

> … it is hard not to feel like we are victims. We were intentionally misled by pharmaceutical companies, misguided by our own industry, misdirected by our regulatory agencies, and often lied to by our own patients.

As indicated by White, there is an ongoing debate about the physician's role in the opioid epidemic White's opioid epidemic narrative positions doctors as victims, whereas individual patients, drug dealers, and pharmaceutical salespersons are the perpetrators. As I will describe later in this analysis, media discourses frame social actors as victims, villains, and heroes of the epidemic. I will argue in this dissertation that some media narratives misinform patients about doctors' roles in the epidemic, causing serious repercussions for discourses in the fragile domain of medical decision making.

Misinformation refers to inaccurate claims that differ from empirical evidence and scientific consensus on a topic of public concern (Southwell, Thorson, & Sheble, 2017). Misinformation can cause problems because it is often indiscernible, rarely censored, and difficult to counteract. Surveying the U.S. general population, Barry et al. (2015) found that 73% of Americans think that doctors are in part responsible for the opioid epidemic, and 59% of respondents agreed that it's too easy for patients to get opioids from doctors. If media narratives

are portraying doctors as perpetrators, not victims, then such assumptions will infiltrate patient-provider discourse and impact relationships that depend on reciprocal trust and transparency.

Ambiguity in Health Campaigns

Health communication researchers have extensively tested whether narratives outperform expository messages in persuading individuals to adopt preventive health behaviors. A growing body of evidence supports this hypothesis, which has been tested in the context of promoting preventive behaviors for breast cancer (Kreuter et al., 2008), skin cancer (Jenson et al., 2017), and cervical cancer (Murphy et al., 2011). Narratives have the benefit of requiring less mental exertion, often bypassing the negative reactance and counterarguing that precludes the acceptance of informative or expository messaging (Green, 2006). A narrative format is engaging, easier to read than persuasive or descriptive texts, and increases the reader's ability to recall information (Shaffer et al., 2018). Narratives can also impart information about the social, economic, and environmental determinants of health and increase support for evidence-based policies that address structural determinants (Gollust et al., 2019).

In studies of opioid messaging, public health campaign designers have found that storytelling is a successful message format for suppressing societal stigma and raising awareness about opioid addiction treatment. In an experimental study, McGinty et al. (2016) found that portrayals of people who successfully recovered from prescription painkiller addiction decreased stigma and discrimination toward people with the disorder. Similarly, results from Heley et al. (2019) suggest that opioid narratives are potentially effective in reducing stigma and shifting responsibility attributions away from individual opioid users, thereby increasing support for policy solutions.

However, scholars heed caution that the narrative format cannot be treated as a panacea

for getting messages through to health-care consumers. Kreuter et al. (2007) conceded that the narratives are easy for readers to misinterpret, and therefore, more prone to mislead that expository or statistical information. Health narratives are designed to reach narrow, specified audiences, and without proper context, may be misinterpreted, inappropriate, or even counterproductive in health promotion. In addition, the interpretive leeway granted by a narrative also obscures and detracts from the more pressing aim of health promotion: imparting self-directed action to avoid addiction.

From another critical perspective, Lupton (1995) suggested that health promotion logics and discourses assume a rational subject who regards health as a lifelong pursuit attainable through state-sanctioned knowledge and action. Southwell (2000) observed how CDC reports on the distribution of informational brochures on AIDS interpellated an analytical audience as health-care consumers. He argued that how an organization conceives its targeted analytic audience might stand in contrast to the communication objectives it is attempting to achieve. Health promotion experts should acknowledge that even carefully crafted and narrowly targeted narratives will provoke an infinite variety of reactions, responses, and interpretations within a segment of the population.

In line with this sociological perspective, I argue that health communication scholars can benefit from an examination of assumptions and logics undergirding opioid narratives employed as strategic persuasive devices in national health campaigns. For instance, narratives that portray a person's opioid addiction as onset by a doctor's prescription assume that the receiving audience will feel empowered to prevent or avoid opioid addiction by "saying no" to a doctor's prescription. Yet, these portrayals problematically portray doctors as threatening figures, not beneficent partners in medical care. In line with the stipulations from Kreuter et al. (2007),

opioid narratives taken out of context and misdirected to inappropriate audiences can cause more harm than good.

Sense-making in Civil Discourse

A final discourse of consequence affected by media narratives of opioid addiction is the private sphere of family life. Habermas (2000) theorized that, in producing and maintaining socially acceptable knowledge and behavior, humans operate across three levels: the lifeworld level, the systems level, and the communicative level. At the communicative level, linguistic devices – words, texts, and utterances – are used to achieve acceptable understandings and negotiate collective meaning necessary for relating to one another (Goode, 2005). Language, he argued, contains a performative dimension, an illocutionary force that represents the speaker's intended meaning. Successful communicative action, or emancipation, takes place when all grievances are aired and participants in a dialogue reach a mutual understanding of a health concern (Chang & Jacobson, 2010).

In reflecting on a loved one's life, the voices behind opioid overdose obituaries are attempting emancipation through discourses that personify, humanize, sympathize, and exonerate the opioid victim. Social constructionists who study narratives have observed that storytelling provides a venue for illness sufferers, survivors, and social supporters make sense of a distressing past and envision a more promising future (Harter, 2009). In medical anthropology, Kleinman (2005) stated that stories of illness and suffering are inherently moral, providing opportunities for sufferers and their families to reconfigure the experience of illness as something meaningful, purposeful, and worth remembering and communicating to others. Thus, media narratives might relate to the stories of bereaved families who must piece together

meaning and significance from cultural knowledge structures – or offer a different, more intimate glimpse into the lives of individuals most harmed by the opioid epidemic.

Research Aims and Strategy

In this dissertation, I will examine the opioid epidemic narratives constructed, distributed, and reified in three media discourses. I will investigate narratives of opioid addiction projected from four discourses taking place in various media and interpersonal contexts, including elite and Appalachian news media, the nation's health-protection agency, medical practice, and in the private lives of citizens put on display for public consideration. I will examine these discourses during a restricted time period, collecting news media articles, campaign material, obituaries, and health-care provider survey responses between 2016 and 2020. Obituaries were published between 2016 and 2019, a first wave of campaign material was published in 2017 with a second phase of material released in the summer of 2020, a survey was collected between December 2018 and April 2019, and news media included in a content analysis were published between July 1, 2018, and July 1, 2019.

Figure 1 illustrates the four discourses examined in this dissertation.

Aim 1: Quantitatively Describe and Contrast Narratives at Two Levels of News Media Coverage

To achieve a holistic understanding of how stories, normative beliefs, and knowledge about the opioid epidemic trickle down to important areas of civic life and decision making, I must first describe the dominant structure, frames, and attributes of narratives that appear in American news media. In the digital age, online newspapers distribute information about health and societal risks in the form of enterprise pieces. In the second chapter, I characterize the attributes of news media narratives that appear in two elite online news organizations and four Appalachian-based daily online news organizations. Additionally, I compare the narratives of

addiction disseminated by the two levels of news coverage, arguing that Appalachian regional news coverage reflects the media diet of a geographic population overburdened and under-resourced in the epidemic (ARC, 2018), whereas elite coverage represents the stories of addiction directed toward issue stakeholders and policymakers. I expect to see variations of the opioid epidemic story in these two media environments, which may influence the social knowledge that consumers acquire through available media discourses (Hwang & Southwell, 2009).

- RQ1a: What is the opioid epidemic narrative told through elite national news media and Appalachian regional news media from 2018 to 2019?
- RQ1b: How do the narratives of the opioid epidemic compare at different levels of news media coverage from 2018 to 2019?

Aim 2: Mixed-Methods Analysis and Appraisal of the CDC's Rx Awareness Campaign

The government exerts its influence on the health and wellness of the public by dispersing information through strategic mass media campaigns. Health campaigns dispense cautionary narratives of opioid addiction to the public, providing explanatory frameworks to assist individuals in directing action to prevent opioid misuse and addiction. In the third chapter, I describe in the dominant discourses and stories of individuals broadcast through a national opioid awareness campaign.

- RQ2a: What is the opioid epidemic narrative told through the Centers for Disease Control and Prevention "Rx Awareness" Campaign?
- RQ2b: How do stories of individuals featured in the CDC's Rx Campaign compare to stories of individuals with OUD appearing in news media coverage?

Aim 3: Survey Physicians about How Media Messages Infiltrate Patient-Provider Discourse

I predict that the media messages that emanate from different sources will influence clinical opioid communication, a discourse where decisions lead to outcomes, positive and negative, for patients seeking medical intervention. In the fourth chapter, I assess HCP perceptions regarding opioid media and assess whether media messages infiltrate the protected sphere of patient-provider communication and influence the tone of the clinical encounter.

- RQ3a: Which groups do HCPs perceive as responsible for creating the opioid epidemic?
- RQ3b: To what extent do media narratives infiltrate and influence clinical discourse?

Aim 4: Conduct a Textual Analysis of Opioid Obituaries

Private people who have endured a personal loss to the opioid epidemic find an outlet for storytelling, memorializing, and sense-making through obituaries, which are increasingly published online through websites such as Legacy.com. In the fifth chapter, I describe the opioid narrative represented by the voices of the epidemic's bereaved.

- RQ4: What is the opioid epidemic narrative told through opioid overdose obituaries?

Aim 5: Identify Biocommunicability Models

Given that opioid addiction is treated as a biomedical issue, I also consider how news stories about the opioid epidemic project discursive ideologies about the consumption, reception, and circulation of opioid information. In teasing out the story origin, audience, frames, and overarching tone of opioid news stories, health media scholars can better understand the "second pedagogical project" of the communication (Briggs & Hallin, 2010).

- RQ5: Which ideologies for communicating about health (patient-consumer model, biomedical authority model, public sphere model) are most prominent in each media discourse examined in this dissertation?

CHAPTER 2: BIOMEDICALIZED, STIGMATIZED, AND POLITICIZED: THE CONTESTED NEWS MEDIA NARRATIVES OF AMERICA'S OPIOID EPIDEMIC

Prior to the COVID-19 outbreak, the opioid epidemic stood as one of the greatest public health challenges in modern U.S. history. According to the most recent data, 46,000 lives were lost to opioids in 2018 (Hedegaard et al., 2020). The manner in which the news media portray the causes, consequences, and people affected by opioid addiction has important implications for how politicians, medical doctors, scientists, public health workers, and community leaders define and act to resolve the crisis (Carr, 2019). Narrative framing, or presenting a singular case of a person's lived experience, constitutes a form of episodic framing (Gollust et al., 2019), and journalists often deploy personal narratives to increase the aesthetic quality of their news writing (Hinnant et al., 2013). In addition, the framing of addiction may differ as elite and non-elite news organizations abide by different news values and priorities for conveying health issues to the public (Carpenter, 2007).

In the forthcoming chapter, I present the results of a quantitative content analysis to describe the presence of various sources and substantive frames at two levels of news media coverage: national elite and regional Appalachian. I will describe the extent to which each level of news coverage reflects a biomedical or stigmatized definition of opioid addiction. I will explore the extent to which news stories integrate a narrative and present a trajectory of an individual who uses opioids. The trajectory of the individual with opioid use disorder may sway public perceptions of whether the condition is insurmountable or treatable with medical intervention.

News Coverage of the Opioid Epidemic

Since the advent of the digital age, Americans have flocked to online sources seeking information about health risks. In a national survey, 72% of Internet users said they searched for online information about health issues, and one in four Internet users had read or watched someone else's health experience in the past 12 months (Fox, 2014). The opioid epidemic topped news headlines in 2019 (CDC, 2019), and recent data suggests that Americans are reading and sharing news stories about opioids. Jain et al. (2020) found that Twitter users were more likely to retweet opioid information posted by media organizations than health organizations.

Extant research purports that mainstream news coverage has problematically categorized the opioid epidemic as a criminal justice issue. A content analysis of national online and television news from 1998 to 2012 indicated that most news stories framed opioid abuse as a criminal justice matter, although the number of stories that proffered law enforcement solutions to the opioid epidemic decreased from 70% to 57% during the 14-year observation period (McGinty et al., 2016). More recently, Russell et al. (2019) conducted a framing analysis of stories posted on Ohio newspaper Facebook feeds, finding that the most frequent frame employed was awareness of the opioid epidemic (34%) and the second-most frequent frame was programs, policies, and interventions (29%), followed by a third frame, crime, punishment, legal cases, and law enforcement (28%). Human interest stories, or those that contained a personal story, only appeared in 8% of Ohio news stories posted on Facebook.

Appalachian Opioid News

More than two decades into the nation's opioid crisis, rural populations continue to see upward trends of opioid misuse and a dearth of resources to assist people living in addiction. In 2015, the rural drug overdose death rate surpassed the metropolitan rate (Mack et al., 2017). The

all-cause mortality rate for Appalachians is more than 30% higher than non-Appalachians, and in 2017 Appalachian opioid overdose mortality was 72% higher than the rest of the nation (National Association of Counties and Appalachian Regional Commission, 2019). Despite the federal government's pledge to eradicate pill mills, Appalachian communities are still prime targets for opioid prescriptions, with prescribing rates 45% higher in Appalachian counties than the rest of the country.

Experts have explained that multiple interrelated social, economic, and infrastructural factors contribute to persistently high rates of opioid abuse in rural areas of the country, particularly the Appalachian region. Keyes et al. (2014) identified four contributing factors: (1) the widespread availability of opioids from medical and illicit suppliers; 2) increasing economic deprivation due to younger generations out-migrating; (3) tight kinship and social networks for dispersing nonmedical prescriptions; (4) dearth of economic opportunity that creates a stressful living environment, which increases the risk of substance use. Social norms and risk perceptions also play a role. For instance, Monannt and Rigg (2016) found that rural youth had lower perceptions of prescription opioid risk than their urban counterparts and were significantly more likely to misuse an opioid prescription.

Small-town and rural Americans prefer traditional news sources, such television and a local print newspaper, but are increasingly reliant on the Internet. Newspaper readership is increasingly digital, with 43% of daily newspaper consumers vying for the digital edition (Pew, 2019). A recent Pew Research Center survey found that nearly half (45%) of small-town Americans and 35% of rural Americans use a mobile device to retrieve local news and information. However, rural Americans don't believe that local news coverage reflects important

issues and activities in their local communities, with 57% saying that local news media "mostly cover another area" (Grieco, 2019)

With limited staff and resources, non-elite news organizations cover stories that provide local perspectives of national issues (Carpenter, 2007). Thus, non-elite Appalachian news reporters have an advantage in their proximity to the crisis: they are entrenched in the culture and social environment and able to locate individuals personally affected by the crisis. Their embeddedness in the community may permit a more empathetic and sensitized examination of a drug crisis affecting disadvantaged populations and communities compared to accounts provided by larger, infiltrating media organizations. Still, it is possible that staffing limitations force local editors to publish more wire stories covering the opioid epidemic, which highlight efforts to address the problem at the national level.

Elite Opioid News

National elite media have converged upon Appalachian communities to conduct on-the-ground reporting of the opioid epidemic. Pulitzer Prize-winning investigative reports (Eyre, 2017) and popular nonfiction books have characterized the opioid epidemic as disproportionately destructive in Appalachia. Journalist Beth Macy's *Dopesick* (2015) focuses on the crisis in Southwest Virginia, anthropologist Lesly-Marie Buer's *Rx Appalachia* (2017) takes place in Eastern Kentucky, and investigative reporter Sam Quinones' *Dreamland* (2016) opens with a desolate scene of the once-bustling town of Portsmouth, Ohio. Macy makes a case for shifting attention to the Appalachian region:

> The birthplace of the modern opioid epidemic – central Appalachia – deserves the final word in this story. It is, after all, the place where I witnessed the holiest jumble of unmet needs, where I shadowed more angels, in the form of worn-out EMTs and preachers, probation officers, and nurse-practitioners. (p. 273)

Elite, or "prestige," news media organizations have earned a reputation for upholding the journalistic values of truth, accuracy, and fairness in reporting, as well as the power to influence policy debate and set the agenda for lower-level media organizations (Lacy et al., 1991). Because of larger circulations and budgets, elite organizations, such as *The New York Times* and *The Wall Street Journal*, endow reporters with more freedom to pursue in-depth stories and cover travel expenses for enterprise reporting projects. Using source selection as a proxy for how journalists in elite and non-elite organizations covered the 2003 Iraq War, Carpenter (2007) found elite organizations relied more heavily on official sources and framed the war in terms of military conflict. The opioid epidemic, like the Iraq War, is an issue of national concern that receives considerable attention in national and international news media.

Yet, it is unclear how the opioid epidemic story told by two different levels of media coverage vary. In examining the heroin beat reporter's role at the *Cincinnati Enquirer* as a model for reporting on the epidemic, Willis and Painter (2018) found that reporters used combinations of episodic, thematic, public health, and crime and law enforcement frames to cover the issue. A recent article from Lawson and Meyers (2020) analyzed both state-level and national stories that focused on the opioid epidemic in rural communities, finding that state-level newspapers emphasized the growth and spread of the epidemic.

Additionally, research suggests that news stories about the opioid epidemic have underrepresented systemic or societal forces that contribute to the epidemic. Webster et al. (2019) illuminated how Canadian media omitted the fact that opioid-related deaths are associated with comorbidities such as poly-substance use, alcohol use, mental illness, and socioeconomic status, thus keeping institutional forces that contribute to the epidemic out of the public eye. Further, news media describe two types of disordered opioid use: one that stems from the use of

socially sanctioned substances and another that results from criminal deviance. These different types of opioid use carry a separate set of assumptions about the character of people who are addicted to opioids. At times in the news, these distinctions are blurred as different assumptions about criminalized opioid use and medicalized opioid use intersect, contradict, and compete for legitimacy. People who use opioids are at once victims of unfortunate circumstances, heroic activists, nefarious lurkers, and ordinary health-care patients.

Scholars have also criticized news media for underreporting the effectiveness of treatment and recovery services for people with opioid use disorder. Medication-assisted treatment (MAT) for opioid use disorder is underutilized in high-impact communities and stigmatized as "substituting one addiction for another" (NIH, 2020). Narratives about opioid addiction in the news media have the potential to change public perceptions of attribution for prescription drug misuse (Heley et al., 2019). Yet, as the number of news stories that mention medication-assisted treatment for opioid use disorder increased from 2015 to 2016, much of the local coverage of MAT was negative and only 40% of stories mentioned the underutilization of such therapies (Kennedy-Hendricks et al., 2019). These data suggest that journalists are reluctant to promote the biomedical definition of disordered opioid use advanced by scientific experts.

Biomedicalization

As biomedical innovation has expanded at a rapid pace in the new millennium, so has the biomedical field's jurisdiction. Biomedicalization refers to the transformative effect that technoscientific innovation in the biomedical field has on other disciplines and fields of expertise (Clarke, et al., 2003). Briggs and Hallin (2016) built on the assumptions of biomedicalization in positing biomediatization as a process of continual and reciprocal influence between the spheres of health news and medicine. Journalists, editors, bloggers, and other content producers hold

some power in the biomedicalization process by selecting which linguistic cues and descriptors appear in their stories. By invoking biomedical terminology, news outlets conform to a hierarchical-linear model of biomedical information transmission, serving as mediators between the scientific domain and the public sphere. However, journalists may also project a patient-consumer model of "communicability" in veering away from biomedical expertise and empowering health-care consumers with information. News media project a public sphere model by addressing readers as spectators of an unfolding political drama who must decide on collective social values.

Yet, it is uncertain whether the biomedicalization of opioid addiction is penetrating the public sphere through news media stories. NIDA characterizes opioid addiction as a chronic, relapsing disease that impairs the normal functioning of the brain. In a 2008 report, the agency acknowledged a person's choice in initiating drug use, yet attested that once addiction sets in, a "a person's ability to exert self-control becomes seriously impaired" (p. 7). The report goes on to explain that brain imaging studies evince "physical changes in areas of the brain that are critical to judgment, decision making, learning and memory, and behavior control," thus changing how the brain operates (NIDA, 2008, p. 7). However, scientists promoting the brain disease paradigm are met with resistance from numerous fields competing for authority, including the arenas of politics, policing, and social science (Courtwright, 2010). Courtwright contended that a biomedical takeover will only occur if and when the field can produce a pharmacotherapy that effectively treats the disease of addiction. Until that point, other fields will compete and contend for authority, thus complicating the public's understanding of who is responsible for addressing opioid addiction.

Stigmatization

Public health experts and politicians alike have rebuked the use of language that perpetuates the stigma of opioid addiction. Stigma involves a process of labeling a characteristic as undesirable, setting apart those who possess the characteristic, and developing a rationale for rejecting, excluding, and demeaning individuals who meet such criteria (Link & Phelan, 2006). Opioid addiction is a highly stigmatized condition in America. In a national survey, 36% of respondents agreed that people who use opioids are more dangerous than the general population and 67% viewed addiction through a morality frame (Lefebvre et al., 2019). Another survey by Kennedy-Hendricks et al. (2017) found higher stigmatization of opioid use disorder predicted higher levels of support for punitive policy and lower levels of support for public health-oriented policy.

The National Institutes on Drug Abuse (2020) has discouraged the use of stigmatizing language, which gives credence to "antiquated" beliefs that addiction is a moral failing. Experts advocate for using person-first language, or language with a neutral tone and separates the person from his or her diagnosis, in characterizing a person with addiction. By contrast, stigmatizing words such as "addict," "user," and "abuser" can elicit negative reactions, reify stereotypes, and deter individuals from seeking treatment.

In the present study, we ask whether stigmatizing language appears more frequently in opioid epidemic news coverage than medicalizing language. In comparing the occurrence of terms that assign different meanings to people affected opioids, we can infer the content to the presence of competing epistemologies for orienting news consumers to the opioid epidemic. One set of terms denotes a newsmaker's attention to the brain disease paradigm, and the other exposes the newsmaker's tendency to "other" people with opioid use disorder.

Framing Theory

Framing theory assumes that a communicator exerts some degree of influence over how a text is presented and interpreted by selecting and making salient certain aspects of information (Entman, 1993). According to the oft-cited theory, elements and details of the text that the communicator emphasizes or elevates in the text will be the "bits of information" that stick to the receiver's memory and become ingrained in his or her cultural knowledge base. Entman (1993) proposed four primary framing functions: to identify problems, to provide causal explanations, to render moral evaluations, and to prescribe treatments or solutions. Because frames are bound to cultural norms, beliefs and values, the logic follows that there are a limited number of news frames employed by the media, although scholars' re-naming of frames with the same function has resulted in a disorganized literature. Neuman, Just, and Crigler (1992) identified five recurring frames universal to all forms of news coverage: attribution of responsibility, human interest, conflict, morality, and economic consequences. In a systematic review of health news reporting, Dan and Raupp (2018) surmised that framing studies of health risk news reporting could be condensed to 15 recurring frames, although they found a redundancy in the naming of frames in health risk literature.

Although framing theory can be used to infer the meaning of a text to a cultural or historical moment (Riffe et al., 2019), some scholars have attended to the antecedent conditions, decisions, and procedures of journalistic framing. News media stories are the products of ongoing negotiations and interactions between journalists, stakeholders who have a vested interest in influencing the messages transmitted to the public, and citizens who are both consumers of and contributors to digital news. Frame building theory refers to the process by which these three actor-groups participate in the news media's treatment of complex societal

issues (Lecheler & de Vreese, 2019). The final news product is shaped by factors internal to the news organization – such as news values, staffing and resources, and editorial policies – as well as external factors, such as the elites and stakeholders that serve as information brokers. Indexing occurs when journalists become overly dependent on political and elite actors, who dominate the discourse and shape the message because of low journalistic agency (Scheufele, 1999).

Historically, health and science journalists have relied on experts to act as translators of convoluted and specialized topics, and thus shown a tendency to resort to indexing in their reporting (Nelkin, 1995). More recently, science journalists have acquired specialized credentials and knowledge to increase their agency. In fact, the advent of the medical correspondent, the health professional who doubles as a journalist equipped with medical knowledge, represents the blurred line between the biomedical field and journalism (Briggs & Hallin, 2016). The sources who appear in a news article are like fingerprints of an intellectual field's influence on a news product, indicating the voices whom the news media has favored as "authorized knowers" on a particular news item (Hallin, Brandt, & Briggs, 2013).

Narratives as Episodic Frames in Opioid Epidemic News Reporting

A literary convention commonly enfolded in news writing, narratives are representations of events that are sequentially ordered, causally related, and involve a central character who exhibits humanlike qualities and vulnerabilities (de Graaf, 2016; Kreuter et al., 2007). Narratives are ideal for conveying trajectories, or journeys, by presenting a character's conflict and describing how intentions and actions precipitate consequences (Green & Brock, 2000). Narratives are distinguished for their ability to transport audiences into alternative and unfamiliar social contexts (Green, 2006).

Health journalists often employ "exemplars," or personal narratives told by illness sufferers and survivors, to captivate audiences, enhance the aesthetic quality of their stories, and give the issue a "human face" (Hinnant et al., 2013). The journalistic use of personal narratives mirrors the strategic use of narrative in health promotion efforts, where narration has shown to be an effective communication method for conveying empathy while providing useful information (Shaffer & Zikmund-Fisher, 2013). Zillmann (2006) established that narratives can overrule base-rate information, amplifying beliefs about the prevalence of a health risk even in the absence of supporting factual evidence. Narratives impart authenticity by presenting relevant, relatable cases that are consistent with the audience's preconceived notions of a particular health condition (Petraglia, 2009). Narrative persuasion theorists have accumulated evidence that audiences are less likely to resist (Kreuter et al., 2010) and more likely to recall and retain narrative information (Gollust et al., 2019; Green, 2006; Moyer-Gusé & Nabi, 2010). Moreover, narratives are engaging, vivid, and concrete, and thus bring abstract concepts down to a "human scope" that is easier for audiences to process (Dahlstrom, 2014).

Yet, as an episodic frame (Iyengar, 1991), personal narratives may disseminate inaccurate representations and increase public perceptions of individual attribution for a social problem that requires structural solutions (Kennedy-Hendricks et al., 2017). Schaffer et al. (2018) exhorted journalists to include personal narratives about health conditions only when the case reflected scientific information, arguing that atypical representations could misguide health behaviors, particularly for audiences with low levels of health numeracy. Other experts have expressed concern that health narratives displace scientific reason and accentuate emotionality (Schwitzer, 2011).

Health journalists typically elect to tell stories that conform to an audience's expectations about a health condition. Instead of seeking narratives that accurately represent a health-related experience, journalists retrofit a story to a particular health topic, opting for a narrative that could be used as a "catalyst for a story type, be it illustrative, inspirational, or sensation-oriented" (Hinnant, 2013, p. 550). In many cases, journalists procure sources from a health-care organization's public relations staff, who are keen to only pitch stories with positive outcomes to represent their organizations. Thus, the personal narratives journalists choose to tell, as well as the details they bring to the fore about one person's opioid addiction, will frame how the public conceives of a prominent health issue. Whether a narrative ends in tragedy or points to a promising future for a person with addiction might influence the mental schemata viewers activate to make assessments about personal attribution and policy solutions to the opioid epidemic (Heley et al., 2019). In fact, Fitzgerald et al. (2019) found that a restorative narrative, or narrative that showcased a character's meaningful progression toward recovery in spite of opposition and with a theme of psychological resilience, increased viewers' agreement that society should help individuals with a rare disease and elicited more "positive, meaningful emotions than a hopeless narrative" (p. 7). While researchers have extensively examined the structure and format of narratives in health promotion literature, less attention has been given to the structure of narratives appearing in a widely consumed health information resource: the news media.

Thus, I ask how two different levels of opioid news media coverage – national elite and regional Appalachian organizations – construct disparate versions of the opioid epidemic narrative. Specifically, I ask how sources and frames (attribution frames, human interest frames, controversy frames, and remediation frames) differ between these two levels of

opioid epidemic coverage. Secondly, I ask whether the portrayals of prominent sources at two levels of coverage differs significantly. Thirdly, I compare the extent to which each media level uses stigmatizing and medicalizing terms to characterize opioid addiction. Finally, I attend to the presence of an individual's personal experience as a news making device, positing that narrative integration constitutes a form of episodic framing that shows the progression of a character managing a conflict in chronological order.

Research Questions

Origins, Sources, and Frames

- RQ1: What were the predominant sources, story origins, and frames presented in elite news coverage of the opioid epidemic between July 2018 and July 2019?
- RQ2: What were the predominant story origins, sources, and frames presented in Appalachian regional news coverage of the opioid epidemic between July 2018 and July 2019?
- RQ3: How did opioid epidemic attribution, barrier, remediation, and controversy frames differ between elite news and Appalachian news?

Stigmatizing and Medicalizing Terminologies

- RQ4: To what extent did national elite news and regional Appalachian news use stigmatizing terms to characterize opioid addiction in stories published between July 2018 and July 2019?
- RQ5: To what extent did elite national news and Appalachian news use biomedical terms to characterize opioid addiction in stories published between July 2018 and July 2019?

Narrative and Portrayals

- RQ6a: How were prominent sources portrayed in elite national news stories and Appalachian news stories from July 2018 to July 2019?

  RQ6b: Was there a significant difference in how Appalachian and elite news media portrayed prominent sources?
- RQ7a: To what extent did national elite news and regional Appalachian news contain personal addiction narrative in stories published between July 2018 and July 2019
- RQ7b: Did the trajectory of individuals with OUD differ between national elite news and regional Appalachian news?

Method

Content analysis allows researchers to extrapolate patterns, trends, and differences in communication to a particular moment, place, event, or era, such as the opioid epidemic (Krippendorf, 2013). The analyst examines communication by assigning symbols a numerical value, permitting the data to be summarized, reduced, and analyzed with statistical techniques and formulas. Content analysts use abductive logic to bridge gaps between two independent and seemingly unrelated domains. In this study, we attempt to bridge the gap between national elite and regional Appalachian media to better understand how different levels of media coverage may construct oppositional opioid epidemic narratives.

First, in establishing the validity of our measures and instruments, we defined and operationalized the variables and developed a replicable system, or coding language, for categorizing and enumerating the data (Riffe et al., 2019; Krippendorf, 2013). We set out to compare media organizations with disparate audiences that are transmitting narratives about the opioid epidemic: prestige or “elite” news organizations with national viewership and regional

Appalachian news organizations that seek to localize opioid epidemic coverage to residents of high-impact communities.

Sampling Procedures

Units of analysis

A full electronic article, including the headline but excluding the abstract text, represented a unit of analysis. Probability samples, or samples containing units that have an equal chance of being selected from a known population, allow the researchers to estimate sample representativeness by calculating the standard error within a set confidence interval (Riffe et al., 2019). The purpose of the study was to evaluate the attributes of content found in stories that specifically addressed the opioid epidemic as a major public health issue. As such, our inclusion criteria were the presence of one of four opioid terms in the headline or the abstract of the article.

National elite sample. To ensure a representativeness of our news media samples, we tested a series of search strings, starting with an exhaustive search in ProQuest U.S. Newstream database, which included the terms "opioid," "opiate," "heroin," "oxycodone," "fentanyl," "prescription drug abuse," "hillbilly heroin," and "pill mills" in *The New York Times* from July 1, 2018 to July 1, 2019. We randomly sampled 20 stories from the search to evaluate recall and precision, finding that greater precision and less recall were necessary to meet the specificity of our criteria. We then re-ran a six-term search, eliminating the two drug terms "oxycodone" and "fentanyl," during the same time period, which returned 2,218 stories ordered by relevance. Again, the sample was evaluated for precision and ruled too broad and inclusive, as many of the stories did not meet our criteria. We conducted a subsequent two-term search including "opioid and opiates," which returned 1,502 stories.

For optimal precision, we narrowed our search criteria to opioid terms that appeared in the abstract of the article or the title of the article from July 1, 2018, to July 1, 2019. A four-keyword search including "opioids," "opiates," "prescription drug abuse," and "heroin" returned a sample of 199 *New York Times* stories. Replicating the search in *The Washington Post*, we generated a comparable sample of 196 stories. Book reviews and duplicates were subsequently eliminated from the sample (note: duplicate stories were published under different headlines on various pages and sections of each news organization's website; during data analysis, the PI conducted a side-by-side inspection of each article flagged as a duplicate). We randomly sampled 146 stories, or 37% of the total population of elite stories: half (73) of the sample was drawn from the *Washington Post* data set and half (73) from the *New York Times* data set. Together, these 146 stories represent the final sample of elite national stories coded for analysis.

Appalachian regional sample. The four-term search string was replicated to generate a sample of Appalachian regional news stories about the opioid epidemic. Four daily news organizations covering Appalachian states - the *Charleston Gazette* of West Virginia, the *Plain Dealer* of Cleveland, Ohio, the *Louisville Courier-Journal* in Kentucky, and the *News and Observer* of Raleigh and Charlotte, North Carolina - were searched using the identical string from the elite news organization search. These four news organizations provide local coverage of the opioid epidemic in regions identified by the National Institutes of Drug Abuse for having among the highest national rates of opioid overdose and prescription opioid prescribing (NIDA, 2018). The *Charleston Gazette* and the *Courier-Journal* were searched using the ProQuest U.S. Newstream database while stories published by the *Plain Dealer* and the *News and Observer* were available exclusively through the Newsbank America's News database. Searching headlines and abstracts of each news organization using the four-term string, we compiled a total

population of 268 Appalachian regional stories published from July 1, 2018 to July 1, 2019. We randomly sampled and coded 149 stories from the total set to represent 56% of the total population. The final random sample included *n*= 17 *Courier-Journal* stories, *n* = 26 *News and Observer* stories, *n* = 61 *Plain Dealer* stories, and *n* = 45 *Charleston Gazette* stories.

Measurement

The principal investigator developed a codebook (Appendix C) for measuring key variables. A codebook key was also developed to specify inclusion and exclusion criteria and provide examples (MacQueen et al., 2009).

Article Type

News stories were coded as hard news, soft news, opinion, or other.

Human Interest Frame

Human interest is a generic media frame operationalized as a story that contains a descriptive account of human action or lived experience. It was coded as a dichotomous variable.

Sources

Sources were coded in terms of the article's attributing original information to (or citing) any of the following categories of people: (1) doctors, (2) other health-care providers (e.g., nurses, pharmacists, therapists), (3) health-care organizations, (4) politicians or government officials, (5) government health agencies, (6) legal and law enforcement officials, (7) pharmaceutical company representatives, (8) private businesses or NGOs, (9) drug dealers, (10) persons with problematic opioid use, (11) family members of persons with problematic opioid use, (12) researchers or experts, (13) news media, (14) local community members, and (15) other.

Prominent Source Portrayal

Six prominent sources – doctors, health-care providers, health-care organizations, politicians/government officials, pharmaceutical companies, and persons with problematic opioid use – were coded on a scale of 1 to 3: heroes (3), villains (1), or neutral figures/victims (2) in opioid epidemic news stories. Heroes were operationalized as performing a positive action toward resolving the opioid epidemic: advocating for change, working to solve a problem, filling a dearth of resources, aiding those in need, or calling out injustice. Villains were operationalized as sources portrayed as causal agents or contributors to the opioid epidemic (e.g., overprescribing, operating a pill mill, selling drugs on the street). Finally, neutral figures were sources portrayed as either impartial sources or sources portrayed as victims who neither contributed to nor took action to resolve the problem.

Story Origin

The measure for story origin was adapted from Hallin, Brandt, and Briggs (2013) and originally consisted of 13 categories. Upon reviewing the frequency of story origins coded, we collapsed categories with a frequency of fewer than 10 into an 'Other' category, resulting in seven categories: (1) action by advocacy group; (2) action by the government; (3) action by pharmaceutical industry; (4) crime, legal action, or court decisions; (5) research findings or publications; (6) in-depth report or feature story; (6) a person or organization writing to make an argument, and (7) 'Other.'

Controversy

A dichotomous controversy item was adapted from Briggs and Hallin (2016) and coded for the presence (1) or absence (0) of multiple dissenting opinions on a public issue. The nature of the controversy was coded as over one of the following issues: (1) medical science and

research, (2) health-care practice, (3) a population's access to resources, (4) pharmaceutical marketing or sales tactics, (5) legal proceedings, (6) health-care policy, (7) government intervention/non-intervention, (8) law enforcement activities, (9) human morality, or 'Other.'

Attribution Frame

We coded for the presence (1) or absence (0) of 10 issue-specific attribution frames, or explanatory frames for opioid addiction or the opioid epidemic. Attribution frames were adapted from causal frames identified by McGinty et al. (2016).

Barrier Frame

We coded for the presence (1) or absence (0) of six barriers, or factors that posed resistance or prevented efforts to resolve the opioid epidemic.

Remediation Frame

In addition, we coded for entities that sources identified in the story as possessing the authority or influence to enact solutions to the opioid epidemic. The remediation frame answers the question: who is responsible for taking corrective action to resolve the opioid crisis? These coding categories were also informed by McGinty et al. (2016).

Narrative Trajectory (Restoration)

Stories coded as human interest were also coded for the presence (1) or absence (0) of a story about a person who had experienced or was experiencing opioid addiction firsthand. Any story containing a chronological descriptive account (narrative) about a named person (character) with problematic opioid use (conflict) was subsequently rated on a narrative restoration scale of 1 (no attempt at restoration) to 4 (successful restoration), which was adapted from measures in Fitzgerald et al. (2019). A mean score was calculated to measure the degree of restoration the person with OUD achieved, referred to as the narrative trajectory.

Biomedicalization

The biomedicalization of opioid addiction was measured by counting three terms advanced by the National Institute on Drug Abuse (2020) as the appropriate terminologies for referencing the status of a person addicted to opioids: *disease, disorder, and dependence/dependent*.

Stigmatization

The stigmatization of opioid addiction was measured by counting three stigmatizing terms designated by the National Institutes on Drug Abuse: *user, abuser,* and *addict*. To be counted in our study, the terms must have been used in the context of characterizing the problematic use of opioid prescriptions or illegal opiates.

Intercoder Reliability

Content analysts should demonstrate three dimensions of reliability: replicability, or whether the procedures can be repeated; stability, or consistency of the procedures; and accuracy, or whether the procedures are resulting in coders recording and coding variables appropriately (Krippendorf, 2013). The PI demonstrated reliability of the coding instrument by conducting multiple training sessions with a second coder who was familiar with narrative theory and concepts pertinent to the study. Training procedures included a coding "quiz" programmed in Qualtrics survey software, which tested the second coder's consistency in identifying codes in an article randomly selected from the data set prior to main study launch.

Human coders are able to interpret and contextualize communication content and thus cannot be replaced by algorithmic technology for identifying abstract concepts in a text. Several of the codes developed to answer our research questions were latent concepts, or implicit and embedded meaning requiring more attention to context and interpretation, or "reading between

the lines," on the coder's part (Holsti, 1969, p. 12). As one example, we instituted a system of coding prominent sources (e.g., doctors, politicians, pharmaceutical industry representatives) as heroes, villains, or neutral figures in the story. While one coder may pick up on cues that signify a source as a villain, the other's interpretation may result in categorizing the source as neutral or even heroic. The coding categories were frequently revisited to address ambiguous cases and refine the codebook accordingly.

We also coded for several manifest variables, or explicit, observable features of a text (Berg, 2004), which required the discerning eye of a human coder. As one example, the term "disorder" was coded as a signifier of the article's attempt to biomedicalize a person's opioid use, yet the term also appeared in non-opioid contexts, such as part of the phrase "there was disorder in her life" or referencing another type of disorder such as a mental health disorder. In these cases, "disorder" denoted a chaotic situation unrelated to opioid use, and therefore, would not be coded in relation to a person's opioid use. However, if the article stated, "she suffered from disordered opioid use" then the term counted as serving to biomedicalize opioid addiction. Even with exhaustive efforts to train coders and clarify discrepancies, coders will bring disparate experiences and perceptions to the coding process, and thus introduce the elements of error and variability. In accordance with the recommendations by Riffe et al. (2019) and MacQueen et al. (2009), the PI provided coders with a supplemental guide to the codebook, which delineated inclusion and exclusion criteria for each coding category. The correct category for commonly miscoded items were listed on a "cheat sheet," which both coders developed as a fluid reference document.

Two independent coders conducted three reliability pre-tests of 20 stories randomly sampled from the *New York Times* data set. After coding each reliability sample, the coders met

to discuss disagreements and revise the codebook. In accordance with recommendations from Lacy, Watson, Riffe, and Lovejoy (2015), the PI calculated Krippendorf's alpha for each variable measured, finding alphas improving with each stage of pre-testing toward a .70 reporting standard. In accordance with recommendations from MacQueen et al. (2009), the coders continued to convene after each round of coding to address and resolve any discrepancies arising in the coding system. In the main study, we double-coded 98 randomly selected elite news stories (67% of the sample) and 92 randomly selected regional Appalachian news stories (63%), resulting in a final reliability sample of 190 stories, or 64% of the total sample. Reliability coefficients for the 80 variables coded in each sample ranged from .69 to perfect agreement, and percentage agreement between coders exceeded the 80% reporting standard (Riffe, et al., 2019).

Results

The central aims of this study were to describe and compare narratives of opioid addiction appearing in regional Appalachian news and national elite news coverage of the opioid epidemic. Appalachian news organizations and national elite news organizations target disparate demographics of American media consumers and abide by different news values and reporting standards, and therefore might project different normative assumptions about the causes and consequences of opioid addiction. We provided a closer examination of the discourses of opioid addiction evident in two levels of news media coverage.

RQ1 and RQ2 asked which sources, story origins, and frames were most evident in national elite and Appalachian regional news coverage of the opioid epidemic between July 2018 and July 2019.

Elite sources, origins, and frames

Sources

Government and elected officials were the leading sources in elite coverage of the opioid epidemic, appearing in more than half (55.5%) of elite stories and representing 17.3% of total sources cited by the two elite organizations. Legal and law enforcement officials followed, appearing in 40% of elite stories and accounting for 12.6% of the total source count, and government health agency representatives were cited in 36% of stories while pharmaceutical industry representatives were cited in nearly a third (28.8%) of elite stories. Doctors were cited in about 20% of the elite news sample.

Story Origin

Elite news coverage most frequently originated from government or health agency action (38%) or legal/criminal action (38%). The majority of elite coverage was hard news (68.5%) that contained a controversy frame (66.4%). Less than a third (27.4%) contained a human interest element.

Attribution

Illegal activity was the most common attribution frame employed in elite news coverage, appearing in 58.2% of stories. The medical care frame was used in 39.7% of stories and the pharmaceutical industry frame in 37% of stories. About 14% of stories used a government or policy attribution frame and slightly fewer (12%) attributed opioid use to individual willpower. The fewest number of elite stories framed the cause of opioid addiction as the consequence of social influence (6%) or physical changes in the brain (.7%).

Barrier

Elite news framed government and policy as a barrier to resolution in 18.5% of the sample, followed by lack of access to resources or treatment (17.8%) and lack of awareness (9.6%).

Remediation

Policy/government remediation frame was used in 36.9% of elite stories, followed by the medical system and its providers (30.8%), and legal or law enforcement officials (19.2%).

Controversy

One-third of elite news stories included a controversy related to health policy and government. The second-most cited controversy in elite news coverage was legal action or court cases (22.7%) and third was health-care decision making (14.4%).

Appalachian sources, origins, and frames

Sources

Appalachian regional coverage was heavily saturated with government and legal authorities, as more than half (51%) of stories cited a government or elected official, more than half (51.7%) cited a legal or law enforcement official, and 25% cited a government health agency. Media sources and private organizations or NGOs both appeared in 20% of stories. Pharmaceutical industry representatives were sourced in 12% of stories while doctors were sourced in 13% of stories.

Story Origin

In more than a third of the Appalachian sample (32%), the news trigger was legal action or criminal activity. The majority of Appalachian stories (82%) excluded a human interest element.

Attribution

Coded in more than 43% of Appalachian stories, illegal activity was the leading attribution frame, followed by medical care (28%), and the pharmaceutical industry's influence (24%). A mental health disorder or trauma was cited as a cause of opioid addiction in 6% of stories, and the brain disease frame only appeared twice (1.3%).

Barrier

When a barrier to resolution was present in Appalachian regional news coverage, it was most frequently a population's lack of access to resources (17%). Slightly more than 10% of the stories cited a policy or government barrier, while 7% mentioned stigma.

Remediation

Nearly a third of stories (28%) framed the medical system and its providers as most responsible for correcting the epidemic, and slightly fewer (25%) identified the government as responsible for taking action.

Controversy

Most controversies at the center of Appalachian stories dealt with legal action (38.6%). Health policy and government action (22.8%) and health-care decision making followed (14%), respectively.

Comparing Two Coverage Levels

RQ3 asked whether sources and frames were associated with Appalachian or elite news coverage of the opioid epidemic. First, we conducted a two-by-two cross tabulation for the presence or absence of each source by variable category: elite or Appalachian. For each significant chi-square result showing significant associations among two variables, we conducted a post-hoc *z*-test of proportions to delineate significant differences in variable levels. A *z*-test showed the proportion of pharmaceutical industry sources was significantly lower in

Appalachian news coverage (z = -3.62, p < .001). Researchers, field experts, and scientists differed significantly by news genre, with a negative association to Appalachian coverage (z = -4.01, p < .001). There was a negative association between Appalachian media and sourcing individuals with problematic opioid use (z = -2.07, p < .001) and government health agencies (z = -2.01, p < .01). See Table 1 for frequencies and chi-square test results for sources.

We also examined the presence of attribution, remediation, and controversy frames in Appalachian and elite opioid epidemic coverage. In terms of attribution framing, illegal activity (z = -2.64, p < .001), medical care and decision making (z = -2.10, p < .01), pharmaceutical industry influence (z = -2.41, p < .01), injury or pre-existing medical conditions (z = -2.16, p < .01), and government and policy inaction (z = -4.81, p < .001) frames were all associated with elite-level news coverage. The two news levels did not differ in barrier frames. However, the politicians or government remediation frame was associated with elite-level coverage (z = -2.43, p < .01). A chi-square test did not show differences in controversy frames by level of coverage.

RQ4 questioned whether certain sources might be associated with the presence of controversy in all levels of news coverage. A series of chi-square tests and post-hoc z-tests of proportions showed that doctors (z = -2.37, p < .01) government officials (z = -2.36, p < .01), government health agencies (z = -.350, p < .001), pharmaceutical industry representatives (z = -7.33, p <.001), and field experts and scientists (z = -3.74, p < .001) were associated with controversy.

Stigmatizing and Medicalizing Terminologies

RQ3 and RQ4 asked the extent to which elite and Appalachian news coverage used stigmatizing terms in a year's worth of opioid epidemic coverage. Stigmatizing terms appeared in 19.5% of all Appalachian stories with a total of 50 stigmatizing terms counted in the entire

sample. By contrast, more than a third (36%) of elite news stories contained stigmatizing terms, and the total number of stigmatizing terms was triple the number counted in the Appalachian sample (n = 151). Thus, 74% of stigmatizing terms appeared in elite coverage whereas 26% appeared in Appalachian coverage.

RQ5 and RQ6 asked the extent to which elite and Appalachian news coverage used any of three terms legitimating opioid addiction as a treatable medical condition. Medicalizing terms appeared in about one-fifth (21%) of elite news stories whereas the same terms appeared in 15% of Appalachian news stories. A small subset of each sample – 15 elite stories and 17 Appalachian stories – contained both stigmatizing and medicalizing terms.

In addition, we asked whether the occurrence of stigmatizing or medicalizing terms differed in Appalachian and elite media. The number of stories in each sample that contained at least one biomedical term were comparable and the total count of medicalizing terms were proportionately distributed between Appalachian (46.6%) and elite media (53.4%). However, the number of stories containing at least one stigmatizing term in Appalachian media was significantly lower than elite media (z = -3.17, p < .001).

A chi-square test indicated that there was an association between the level of news coverage and type of terminology used in the article (X^2 (1, N = 330) = 10.58, p < .01). A follow up z-test showed that elite media coverage was more associated with stigmatizing terms than medicalizing terms (z = -3.22, p < .001). In direct contrast, a z-test showed Appalachian media coverage was positively associated with medicalizing terms (z = 3.21, p < .001) but not associated with stigmatizing terms.

Source Portrayal

RQ7 asked how prominent sources cited in elite and Appalachian news media were portrayed and whether there were significant differences in source portrayal between the two levels of news media coverage. Government or elected officials were portrayed more favorably in Appalachian news media (M = 2.71, SD = .55) and health-care providers (excluding doctors) were rated highest in the elite news media (M = 2.66, SD = .49).

We conducted a series of independent samples t-tests to determine whether mean scores for source portrayal (1 = negative, 3 = positive) differed significantly by news media level. Positive portrayals of government officials was significantly higher in Appalachian news stories (M = 2.71, SD = .56) than in elite news stories (M = 2.49, SD = .76); (t(88.6)= -2.02, p = .04). Additionally, the data trended toward pharmaceutical industry representatives receiving more positive portrayals in Appalachian media (M = 1.44, SD = .85) compared to elite news media (M = 1.02, SD =.15), although this outcome was of marginal significance (t(17.5)= -2.07, p = .05).

Narratives and Trajectories

RQ8a asked whether the presence of stories about individuals with opioid use disorder (OUD) differed by level of news coverage. We found that elite-level stories contained significantly more OUD narratives than Appalachian media (z = 2.44, p<.001). We also observed that all Appalachian news stories include a single OUD narrative whereas 25% of elite news stories included more than one OUD narrative. Elite news stories provided a more balanced representation of OUD trajectories: 30% of stories ended in successful restoration in spite of hardship, about 20% of stories ended with the individual attempting to overcome hardship, about 28% of stories ended in failure to overcome hardship (relapse, death, giving up), and about 22% of stories ended with a character showing no attempt to overcome the hardship of opioid addiction. Appalachian stories portrayed successful recovery in a third of stories and failure to

recover in 41% of stories. The remaining five stories did not portray any attempt by the individual to recover from addiction. Taken together, half of Appalachian stories conveyed either a failed attempt or no attempt to seek recovery (See Table 7).

Discussion

In this study, we analyzed components of opioid news stories, as well as personal narratives of opioid addiction, to delineate the cultural narratives of opioid addiction constructed at two levels of the news media. We also measured the extent to which the news media characterized opioid addiction as a physical disorder requiring medical intervention, as denoted by terms such as "disorder," "dependence," and "disease." In addition to assessing the media's use of biomedical terms, we counted the presence of stigmatizing terms to characterize individuals with problematic opioid use. Informed by narrative persuasion theory (Gollust et al., 2019), we asked how news media narratives of individuals with problematic opioid use differed at the two levels of news media coverage. Overall, these results call attention to inconsistencies in how two levels of news media coverage frame the causes, consequences, and actors responsible for resolving the opioid epidemic, as well as the trajectories of individuals with opioid use disorder.

Previous media scholarship has established that news organizations designate the "authorized knowers" on issues of public concern through source selection (Hallin, Manoff, & Weddle, 1994). In the present study, elite news organizations elevated the voices of government and elected officials, legal and law enforcement officials, and government health agencies in coverage of the opioid epidemic. Our research suggests that field experts and research scientists, pharmaceutical industry representatives, health agencies, and individuals with opioid use disorder were positively associated with elite-level news. However, doctors and health-care

providers accounted for a small subset of elite sources. Interestingly, pharmaceutical representatives were cited more often than physicians and health-care providers combined.

Elite health news reporters are committed to the highest reporting standards, often seeking out multiple perspectives and writing enterprise stories that exhibit a high degree of journalistic agency (Briggs & Hallin, 2016). In addition, specialized science and health reporters may use the clout and resources of their respective organizations to elicit input from biomedical experts at the top of their fields (Nelkin, 1995). Elite organizations strive for fair and balanced news coverage (Lacy et al., 1991), which might explain why a greater number and variety of sources were associated with elite-level coverage.

Most elite stories originated from government action, such as policy debate or announcements from political leadership, whereas Appalachian news stories originated from legal action. Consistent with previous research on opioids in the media (McGinty et al., 2016), the predominant attribution frame employed at both levels of coverage was illegal activity, followed by unscrupulous medical providers and pharmaceutical industry greed, respectively. However, we found differences in the prevalence of frames in these two scopes of media coverage, with Appalachian news providing a more favorable view of government officials.

Overall, elite news was positively associated with pharmaceutical industry framing, suggesting that elite organizations carried out a watchdog role reporting on abuses of power in the biomedical industry (Schwitzer, 2010). Yet, somewhat surprisingly, the medical system and its providers were framed more often than Big Pharma. As the second-most cited cause of the opioid epidemic, the medical care frame appeared in 40% of elite stories, followed by pharmaceutical industry influence in 37% of elite stories. The medical care and the injury or pre-existing health condition (e.g., chronic pain) attribution frames were positively associated with

elite news, instantiating the assumption that disordered opioid use is an iatrogenic condition. Systematic studies have concluded that the incidence of iatrogenic opioid use is less than 1% for patients who are prescribed an opioid and have no prior substance use disorder (Moe et al., 2019). Framing the medical system for initiating opioid dependency could mislead the public to believe that exposure to a prescription is the only cause of opioid addiction and consulting with a doctor about opioids poses substantial risk.

We conclude that elite news organizations have continued to tell stories of opioid addiction arising from unscrupulous medical care, even as epidemiological data provides a more complex and rapidly evolving story of how people are abusing opioids. Furthermore, these stories undermine the strides physicians have made in recent years to reduce opioid prescribing (Bohnert et al., 2018). As Webster et al. (2019) articulated, two narratives about state-sanctioned (prescribed) opioid use and illegal (street) opioid use are conflated in the news media. While some studies warn that prescription drug dependence is a risk factor for heroin use (Jones et al., 2015), other research suggests that only a small subset of people with iatrogenic opioid dependence will transition to heroin (Muhuri et al., 2013). Such conflicting evidence can cause confusion for policymakers who are tasked with enacting legislative solutions to the epidemic. When policymakers are presented with a narrative that implicates medical providers, they may react by tightening restrictions on opioid prescribing without considering the consequences. Such state policies have unduly restrained doctors' ability or willingness to take on opioid-dependent patients, who are now considered liabilities in medical practice (Hlavinka, 2019).

Further, Appalachian news was less likely to attribute the crisis to medical care or pre-existing health conditions, but nearly a third of stories framed the medical system as responsible for remediating the crisis. We surmise that Appalachian news coverage may frame the medical

system as a solution and not a cause for a few reasons: 1) local news coverage emphasizes the criminal aspects of the opioid epidemic (McGinty et al., 2016); 2) a high rate of individuals with opioid addiction in these areas necessitate an emphasis on intervention rather than prevention; 3) journalists may be more deliberate in de-stigmatizing addiction through news coverage that recommends treatment options in communities where opioid stigma abounds.

In addition, the biomedical industry was at the center of controversy across news media levels. Controversies were related to health policy or government and legal action, with many stories covering ongoing litigation against pharmaceutical manufacturers. News stories containing controversy were associated with the presence of sources including doctors, pharmaceutical industry representatives, health agencies, and researchers or experts.

Government and political sources were portrayed as more heroic in Appalachian news coverage, suggesting that Appalachian news sources situate government officials as leaders addressing the epidemic. One explanation for favorable portrayals of government officials is the regional-level interest in the outcomes of lawsuits against the pharmaceutical industry in 2018 and 2019. Several lawsuits were settled in state courts. Government blame was undetected in Appalachian coverage, as no stories in the sample framed the opioid crisis as the consequence of flawed policy or government inaction. By comparison, the elite news media included a government attribution frame in 14% of stories. While this distinction may be explained by the watchdog priorities of elite news organizations (Schwitzer, 2010) and a trend toward politicizing the opioid epidemic in Appalachian states. During the 2018 midterm campaign season, political ads with an opioid message aired in 25 states, compared to one state – Kentucky – in the lead up to the 2014 election (Chinni et al., 2018). Favorable government portrayals may reflect a

concerted effort by state-level politicians and their campaigns to leverage the opioid crisis as a policy issue that is increasingly important to their constituents.

Given Appalachian journalists' embeddedness in communities with high rates of OUD, we inquired as to whether Appalachian news incorporated more stories about individuals with opioid use disorder than elite news organizations. Integrating human interest stories is a popular convention in health journalism that makes scientific information more accessible and relatable for readers (Dahlstrom, 2014; Nelkin, 1995). Human interest narratives have also reduced public stigma against people with OUD and shifted attribution perceptions away from the individual and toward political action (Heley et al., 2019). We found that elite news media contained significantly more OUD narratives than Appalachian news. In addition, elite news coverage depicted a more hopeful trajectory for individuals with opioid use disorder, with 14 of 46 narratives featuring a person living in sustained recovery. By contrast, in half of the Appalachian narratives, the individual with OUD either failed to recover (e.g., quit or died) or showed no intention to recover from addiction. As Fitzgerald et al. (2019) found that restorative narratives increased viewer support for prosocial causes and elicited greater emotional responses, a higher degree of character restoration in a news narrative about opioid addiction might also predict support for prosocial causes and empathy for people with OUD, although future studies should empirically test the effects of restorative narratives in this context.

A question remains as to whether the news media have indoctrinated the National Institutes of Drug Abuse's charge to medicalize opioid addiction and adopt the brain disease paradigm in their coverage of the highly publicized health issue (NIDA, 2020). We found no differences in the occurrence of biomedical language in Appalachian and elite articles, which was somewhat unexpected given that elite news organizations boast high reporting standards and

are attuned to dictums released by national public health agencies. Still, medicalizing terms were seldom used at both levels of coverage: 15% in the Appalachian sample and 21% in the elite sample.

On the other hand, our results showed that stigmatizing language is pervasive in both national elite and regional Appalachian media in spite of admonitions from national health agencies to use person-first language in the opioid addiction context. We counted at least one stigma term in 19% of the Appalachian sample, whereas a stigma term was present in 36% of elite news stories. Tallying the total word count, elite news stories contained twice as many stigmatizing terms as Appalachian stories. Journalists and editorial writers may invoke stigmatizing terms deliberately to conjure emotions, convey authenticity or a closeness to the lived experience of addiction, or to inject drama by using words with a certain shock value. While person-first language may be ideal from a medical and public health standpoint, journalists don't necessarily regard biomedical dictums as applicable to their own profession (Amend & Secko, 2012; Schwitzer, 2011).

Conclusion

This research contributes to health media scholarship by examining the extent to which two levels of news coverage construct different social realities of the opioid epidemic. Different opioid narratives, as well as fragmentary or misleading narratives, have implications for policymakers and citizens at both the state and federal levels. Our results suggest that elite news construct an opioid narrative that frames the biomedical industry, and specifically medical doctors, as causal agents in the epidemic. Controversy was associated with biomedical sources, including doctors, pharmaceutical companies, and researchers or biomedical experts.

In line with prior research, we found that both levels of media favored the voices of government officials and employed a criminal justice frame in a majority of stories. We also examined the presence of personal narratives and portrayals of persons with OUD. When accompanied by contextual information, sympathetic narratives that humanize the individual who struggles with opioid use can reduce public stigma and garner support for structural solutions (McGinty et al., 2019). Elite-level news was more likely to incorporate a personal OUD narrative than Appalachian news, and trajectories were more hopeful in elite coverage.

As a theoretical contribution, we merged framing theory with Briggs and Hallin's (2007) concept of biomediatization to evaluate whether the influence of the biomedical field is evident in contemporary opioid news. Our results showed little evidence of the news media's recognition of the brain disease paradigm, as only three stories across news levels framed addiction as a brain disorder. Both levels of news coverage neglected a mental health frame, which appeared in 6% of Appalachian and 7% of elite news stories. Finally, biomedical terms were outnumbered by stigmatizing terms, suggesting that health journalism has resisted the influence of biomedicine in favor of damaging portrayals of opioid addiction. Thus, the opioid epidemic represents a contested area of health journalism where biomedicine competes for legitimacy and authority to produce public knowledge about an increasingly politicized, highly stigmatized issue.

Implications and Future Directions

In sum, opioid epidemic discourses vary within the news media industry, showing differences in the voices authorized to speak on the issue, how prominent sources and individuals with OUD are portrayed, and who deserves responsibility for creating and solving the opioid epidemic. Interestingly, both discourses problematically resist the biomedical characterizations of opioid addiction that are espoused by biomedical experts at the highest levels of the

biomedical field. Appalachian news media limit the voices of individuals personally affected by opioid addiction, instead positioning government officials as authorities and heroes working against the problem. When a person affected by opioid use is portrayed, their story ends in victory or tragedy, not a continuous effort to manage and seek therapy for a chronic disease. Appalachian regional news organizations should rethink their coverage of the opioid epidemic as an opportunity to depict the structural and environmental contributors to the opioid epidemic. Giving local community members a stronger voice in the matter will render deeper insights as to how the problem is uniquely difficult to remediate in this region.

At the national elite level, politicians receive more scrutiny and individual stories are more prevalent than Appalachian news, but news coverage is rife with stigmatizing language that draws attention to the deplorable aspects of disordered opioid use, such as uncivil and irrational behavior. We see that even journalists at the elite level are ambivalent to relinquish the subject of opioid addiction to the biomedical domain. Stigmatizing references to opioid addiction, tied to generational understandings of drug abuse, continue to persist in the news media. Elite health journalists should endeavor to explore the issue of substance use disorder as it relates to multiple structural, environmental, and conditional factors, such as mental health and economic depression.

We found that the trajectory of individual narratives differed between levels of news coverage. More research should attempt to understand the processes of news selection and production that result in divergent narratives. Furthermore, experimental testing is necessary to understand whether certain narrative trajectories have differential effects on audience perceptions and beliefs about opioid addiction. Future research should attempt to examine frames, portrayals,

and exemplars used at different time points to observe how the news media discourse has changed over time.

CHAPTER 3: BRIDGING NARRATIVE THEORY AND PRACTICE: THE CASE OF THE RX AWARENESS CAMPAIGN

In the forthcoming chapter, I will evaluate the opioid epidemic discourse of a campaign produced by the nation's health-protection agency, the Centers for Disease Control and Prevention (CDC). With the assistance of a second coder, I qualitatively and quantitatively analyzed the campaign content. I argue that the opioid narrative touted by the CDC follows a predictable structure and contains cues as to how and why a person develops addiction, who suffers because of a person's opioid addiction, and what events must take place for someone to succeed in recovery from opioid addiction. The chapter concludes with a summary theoretical concepts and empirical findings to guide the future development of opioid awareness campaign narratives.

Mass Media Health Campaigns

Mass media campaigns are useful communication tools for optimizing the reach of health prevention messages and affecting health behavior outcomes in large populations (Wakefield et al., 2010). Campaign messages are strategically designed to persuade individuals to adopt positive behaviors (e.g., buckling a seatbelt), while also instruction or knowledge on how to perform the advocated action, or avoid a proscribed behavior (e.g., smoking) (Rice & Atkins, 2013). While media scholars have debated the effectiveness of mass media campaigns for many

decades, the current consensus is that mass media campaigns have the potential to influence behavior on the condition that they are guided by theory and evidence-based principles of campaign design (Noar, 2006). Mass media campaigns most likely to succeed include a formative research stage, employ theoretical concepts to direct decisions, segment audiences based on commonalities, develop novel messages that are likely to arise in everyday discussion, and evaluate the process and effectiveness of the campaign. Although media scholars have attended to how news media narratives influence beliefs and perceptions about health topics, relatively less research has explored health campaigns as sources of cultural knowledge (Southwell, 2000).

Narratives in Health Promotion

A growing line of research explores whether narrative messages are more persuasive than informational messages in influencing health behavior (Dahlstrom et al., 2017). Whereas informational health messages may trigger defensiveness or avoidance in unyielding audiences, narratives strike a delicate balance between enrapturing viewers in an entertaining plot and educating viewers about a health topic (Slater & Rouner, 2002). Murphy et al. (2013) demonstrated that a culturally relevant drama embedded with a cervical cancer message increased viewers' identification with characters, and consequently, their knowledge and acceptance of cervical cancer screening. Research has shown that the narrative message format is particularly effective for relating complex health information to lay audiences (Dahlstrom, 2014), changing attribution perceptions and increasing support for policy solutions (Niederdeppe et al., 2015); and decreasing disease-related stigma (Heley et al., 2019).

The CDC Rx Awareness Campaign

In 2017, the CDC debuted the Rx Awareness campaign, its first public communication initiative to address opioid abuse. The agency hired outside advertising consulting agency ICF Next to devise a campaign strategy that would achieve two objectives: 1) increase awareness about the dangers of prescription opioids in adults ages and 2) decrease the number of people who accept a medical prescription for opioids (CDC, 2017). The campaign targeted a wide range of ages, from 25 to 54 years. Campaign organizers conducted formative research, including focus groups, in-depth interviews, and social media assessments, to conclude that emotional, loss-framed messages resonated with their audience. In a campaign report, the CDC reasoned that employing testimonials from people whose lives were "torn apart" by addiction was an effective strategy, although the agency did not specify which emotions (e.g., disgust, fear, anger, compassion) were elicited by these messages or how emotionality enhanced quality and effect.

The CDC pilot tested the campaign in counties designated as "high-burden" in Ohio, West Virginia, Oregon, and Rhode Island using a quasi-experimental survey and in-depth interviews. In its online report, the CDC omitted sample sizes for the survey and the interview studies. However, based on the pilot studies, the agency concluded that 71% of targeted participants saw campaign content online, although the channels and time periods of message exposure were undisclosed. The agency attempted to demonstrate the impact of the campaign by reporting that more than 70% believed the message was effective in communicating about the dangers of prescription opioids. Yet, this measurement is limited because it only represents perceptions of message effectiveness and not actual evidence of message effectiveness.

The CDC reported that the campaign succeeded in increasing awareness and knowledge of the prescription opioid threat, and intentions to ask their doctor for an alternative to an opioid

prescription. ICF credited the campaign with changing the public's "awareness and behaviors toward prescription opioids" (ICF, 2020), even though the pilot did not report any measure of behavior change nor use the appropriate method – a rigorous randomized experimental design – to measure campaign message efficacy.

The campaign originally excluded any mention of heroin on the justification that "specificity is a best practice in communication" (p. 7), yet two of the original stories (Brenda's and Devin's) explicitly mention the character's transition to heroin. It is noteworthy that Brenda and Devin are the only non-white individuals whose stories were shared in the first phase of the campaign.

Method

Through a mixed-methods, case-study approach, we quantitatively and qualitatively analyzed the video and textual versions of the opioid addiction narratives appearing on the CDC's Rx Awareness campaign website. The Rx Awareness campaign's homepage includes a subpage entitled "Real Stories." Thirteen of the 18 textual narratives posted to the website had an embedded video component. Eight campaign video narratives – "Tamera," "Ann Marie," "Judy," "Noah," "Brenda," "Mike," and "Teresa," and "Devin" – were posted to the CDC's YouTube page on September 25, 2017. Six opioid narratives part of the second wave of the campaign, including "Tessa," "Tele," Stevi Rae," "Jeni," "David," and "Britton," were added on YouTube July 10, 2020. The remaining four narratives – "Cortney," "Katie," "Jamiann," and "JJ" – did not include a video component nor a posting date but did include an infographic depicting the storyteller and a pull quote. One of the original narratives, "Devin," was unavailable as a video on the CDC's YouTube page but was retrieved from the North Carolina Department for Health

and Human Services YouTube page. The other three narratives – "Jamiann," "Cortney," "Katie," and "JJ"– included a textual narrative and infographic but no video.

Each Rx narrative featured a person whose life was upended by opioid use. While the textual narratives published on the website were written in third-person omniscient voice, the video narratives were told by the person adversely affected by either their own or another person's opioid use, referred to henceforward as the 'storyteller.'

Two independent coders analyzed the textual narratives and watched the 30-second video accompanying each Rx campaign narrative. They participated in an inductive process of reducing themes to codes and organizing codes into categories (Corbin & Strauss, 2015). In addition, each textual narrative was quantitatively coded for whether the speaker was told firsthand from the perspective of someone who experienced opioid addiction (1) or secondhand from a relative (2); the age at which opioids were introduced; the ethnicity of the storyteller; the attribution frames present (1) or absent (0) in the narrative; and degree of narrative restoration of the on a scale from 1 (no attempt to recover) to 4 (sustained success in recovery).

Results

Quantitative

Thirteen of the stories were told from the perspective of individuals who experienced addiction firsthand, and the remaining four were told by family members. In more than half of the narratives (56%) the person became addicted between the ages of 12 and 17, and in 17% of stories the person became addicted between the ages of 18 and 24. Only one story mentioned a person becoming addicted past 35 years of age. Seven narrators were coded as white, five as Black, one as Latino, and five as Native American. Most (72%) of the people who used opioids in the narratives were completely restored, one was categorized as attempting or making a

continuous effort toward recovery, and four people who used opioids failed to recover from opioid addiction.

The attribution frame most frequently employed in the narratives was the injury or pre-existing condition frame, which appeared in 72% of the sample. A medical prescribing frame appeared in more than half (61%) of stories, and a mental health or personal trauma frame appeared in 22% of stories. Social influence was an apparent frame for three stories, and likewise, a morality/willpower frame appeared in three stories. What we find most intriguing, however, were those frames absent from the narratives: inadequate governing or policy, pharmaceutical industry influence, and illicit drug trade frames were not once mentioned as causes of any person's opioid addiction.

Qualitative

We observed six themes related to the causes, consequences, and people affected by opioid addiction resulting from a qualitative analysis of Rx Awareness campaign material. Most storytellers linked their addiction to an encounter with a medical provider who dispensed an opioid but did not communicate the risk of taking the medication. By focusing on individual stories, the campaign framed recovery as a goal or accomplishment to which an individual should aspire; the storytellers attributed their success in recovery to a supportive community or cultural membership.

Theme 1: Blind Deference to Medicine

Several Rx storytellers were first introduced to opioids after visiting a doctor's office for a legitimate medical condition. Many were naive to the risks of the medication; they didn't question their doctor's prescription because they trusted members of the medical profession. Tele, for instance, recalls thinking, "they're prescription opioids, so they can't be that

dangerous." Brenda received opioids after a car accident, an incident that spiraled into misuse, doctor shopping, and eventually selling prescriptions on the street. With tears streaming down her face, she asks, "How can I be addicted? I get these from my doctor."

Other storytellers recounted innocently developing an addiction after following a doctor's orders. Mike realized he'd become addicted when he went on vacation and left his prescription at home. JJ claimed that no one in his community was aware that opioids were addictive. Jeni said she remembered thinking "it was from the doctor, so it was okay." By recalling their tendencies to overtrust a medical provider, the storytellers implicitly suggest that medical experts were culpable for prescribing a medication without first educating them about the degree of risk.

Theme 2: Family as Collateral Damage

Campaign narratives emphasized the irreparable harm suffered by those on the sidelines of opioid addiction: the wives, children, parents, and siblings of people who abused opioids. In Tessa's video narrative, the first few seconds of b-roll footage presented a printed photograph of a young woman in a hospital gown holding a newborn baby. In a voiceover, Tessa explained she was using opioids while pregnant with two of her children, deflecting the audience's sympathies away from the storyteller and toward the babies whom she exposed to opioids in utero. Tessa attributed her decision to stop using to her family:

"I knew this was something I had to stop for the sake of my children and myself."

Campaign narratives positioned children as innocent bystanders who were forced into early maturity because of a parent's erratic behavior in addiction. For instance, JJ's sudden withdrawal from opioids in an emergency room postponed his son receiving treatment for a dislocated elbow. Katie, the daughter of a woman who tried and failed to enter rehabilitation on many occasions, "didn't understand what her mother was going through." The narrative

victimizes the child but reframes Katie's frustration with her mother as a lesson in maturity: the younger woman learned to disassociate her mother from the addiction that warped her behavior. Katie's narrative is one of forgiveness and acceptance, as the narrative states that "substance abuse wasn't her mother's personality or who she was as a human being."

Several narratives depicted family members in confusion and despair after their loved one died from an opioid overdose. Noah, whose father Rick overdosed on opioids, appeared in a video wearing a clean suit jacket and strolling down a street lined with brownstone apartments, exuding the identity of a white-collar urbanite. Noah shook his head incredulously as he reflected on the role his deceased father played in his life: "he's who made me the person I am." Two mothers expressed the gravity of losing a child to addiction too soon, with Judy calling her son's death "all out of order" and Ann Marie saying, "I'm not supposed to be the one to pick out which sneakers I am going to bury him in." The campaign used this striking quote in an infographic of Ann Marie wearing a forlorn expression.

Theme 3: A Good Life

Prior to their opioid use, people featured in the Rx narratives are portrayed as living the "good life." Judy's son Steve was a gifted musician, a dean's list student, a successful financial advisor, and an athlete, which is visually communicated in the video as Judy looks at a photo of Steve running in a long-distance race. Teresa's brother RJ was "incredibly bright" before opioids and Mike was a three-sport varsity athlete before the onset of his addiction. Tamera had a "long-standing career" and comfortable home with her son. David ran a multi-million-dollar brokerage firm and had a happy marriage until his knee surgeries.

Theme 4: The Rock Bottom

Another theme apparent in the campaign narratives, the narratives reach an extreme moment of moral deterioration - "rock bottom" - when a person's opioid use transitions from the innocent misuse of a prescription to deliberate doctor-shopping or heroin use. At this juncture in the narrative, the person at the center of the story becomes enslaved to the stronghold of opioids and morphs into someone unfamiliar to those close to them. Mike, for example, lost his interest in sports and academics, and "all the things he once loved." A once devoted family member, Brenda turned her back on friends and family. Tamera lost a career, a home, custody of a son, and her retirement savings. Cortney tried to end her own life in her car, then wakes up realizing her only way forward was to turn herself into the police. The subject of the narrative depreciates to an extreme low point in their life before they are able to make progress toward recovery.

As another dimension of the theme, at rock bottom the narrative subject is presented with a choice, challenge, or opportunity to rally for change. Doing the right thing on their own volition and in spite of their compromised status ends up reversing the course of their lives. As an alternative to incarceration, Britton entered a court-ordered substance abuse treatment program and credited the program for a fulfilling life. Katie's mom was given the choice of "going to jail or going into treatment" and "thankfully," as the narrative states, "she chose treatment." The emphasis on the individual's agency in the matter – "thankfully, she chose" – constitutes recovery as a purposeful and monumental action forced by vulnerability: a brush with death or a legal bind. At their rock bottom, Tele and Cortney experienced life-threatening events - a car wreck and suicide attempt - which spurred their effort to stop using opioids. These stories support the notion that a person must "hit rock bottom" before they are able to make amends.

Theme 5: Fleeing a Memory, Numbing a Feeling

Using quotations to signify the storyteller's own words, the narratives referred to a "numbing effect," which individuals sought through opioid use. Tele, for instance, turns to opioids to numb the anxiety and stress of hiding his sexual identity in high school. Stevi Rae uses opioids to cope with a past sexual trauma, and in the first paragraph of the website narrative, Jamiann turns to drugs as the consequence of childhood sexual trauma. The numbing connotes escape from an existing source of internal angst – a trauma, a sexual identity, or a mental health condition.

Theme 6: Healing Through Culture

For some storytellers, opioid addiction fissured their connection to culture and community. For many of the minority individuals represented, returning to a home place and rekindling that connection was vital to their recovery. "To be able to heal with your own people… it was the best day of my life," said Stevi Rae, an Alaskan native who returned to her tribe to complete recovery. JJ uses "we" in describing how he was able to overcome his addiction: "we're a community that works together to lift each other up." In her video testimonial, Jeni is shown wearing traditional Native American attire and playing musical instruments. She says she "backed away" from her culture because of her opioid addiction, but the imagery suggests that she found support, belonging, and renewal when she returned to her roots.

Discussion and Recommendations

The challenge in mass health communication is crafting compelling messages that move populations to act in accordance with the medical recommendations. The message must convince audiences of the causal link between behavior and outcome, for instance, smoking causes cancer,

a fatty diet leads to heart disease, and staying current on vaccines prevents infection. Moreover, the most effective health promotion messages contain an efficacy component that instructs the audience to change some aspect of their behavior without the need to acquire a special skill set (Prestin & Nabi, 2012).

Through the Rx campaign, the CDC has broadcast the message that prescription opioids offered by a doctor could be the catalyst that destroys a patient's life. The call to action puts the onus on patients to question their doctor's discernment when the advocated therapy involves an opioid. While the campaign's primary objective was education – to "spread awareness" of the dangers of prescription drugs – a secondary objective was encouraging the mass public to reject these medications in the context of clinical treatment (ICF, 2020). Thus, the behavioral goal at the core of this campaign undermines medical expertise and rattles patient-provider trust, which lies at the foundation of the therapeutic relationship (Adams et al., 2020; Street, 2003).

Consistent with the CDC's 2016 Guidelines for Prescribing Opioids for Chronic Pain (Dowell et al., 2016), Rx campaign narratives perpetuate the notion that patients should be wary of a doctor's recommendation and that opioids should be avoided in all medical cases. Leaders of the medical profession contend that the guidelines have harmed patients and formed the basis of misguided policies that have put strict thresholds on pain treatment (Joseph & Silverman, 2019). In 2019, a group of medical experts entreated the CDC to provide clarification on its prescribing guidelines so that health-care providers would not feel restrained or liable for keeping patients who depend on opioids for relief (Bernstein, 2019). The development of the Rx Awareness campaign occurred in the wake of the CDC guidelines release, and thus reflects the CDC's objective to de-standardize opioid dependency across the continuum of medical care. Although medical authorities have called attention to misguided messages directed toward prescribers,

policymakers have largely ignored misguided opioid messages directed toward health-care consumers.

Like the CDC guidelines, Rx campaign ads spread conflicting messages about the factors that contribute to a person's OUD. The Rx narratives encapsulate three character typologies for individuals who succumb to opioids: the *victim* whose addiction is the consequence of imprudent doctoring; the *escapist* whose addiction is the consequence of lingering physical or emotional pain; and the *self-sabotager* whose discontent, moral lapse, or defiance leads to self-destructive behavior. These three categories overlap and contradict the utility of thenarrative format, which serves to facilitate a logical order and cohesion that allows viewers to make connections between action and outcome, cause and consequence (Dahlstrom, 2014). In fact, when comparing the website version of the individual's (text-based) narrative to the YouTube (video) versions, the two complementary narratives invoke multiple competing explanatory frameworks for a single person's opioid addiction.

For instance, Tamera's textual narrative stated that her opioid addiction was introduced from medical treatment. This deflection of agency to the medical system enacted the *victim* narrative:

Tamera was prescribed opioid medication to manage chronic severe headaches.

Then, the text transitioned to the escapist narrative, suggesting that as her tolerance increased, Tamera needed more medication to get relief from her unbearable headaches:

She began requiring larger doses to experience the same effects the drugs once provided.

By contrast, in the video narrative, the self-sabotager took center stage, as Tamera assumed responsibility for her addiction:

Knowing I did this to myself – that it was preventable – makes it worse.

In David's narrative, the character was first portrayed as a victim. It seemed particularly negligent that a doctor prescribed him opioids have knee surgery, given his history of substance use:

> Although David had a history of excessive alcohol use and cocaine use and had even completed treatment for substance use, he wasn't aware of the addictive properties of prescription opioids.

Yet the narrative pivoted to David the *self-sabotager*, who is ultimately held accountable for his destructive actions in court:

> He bankrupted his brokerage firm, lost his wife to divorce, and was sentenced to 5 years in federal prison.

By blending the narratives of the victim, the escapist, and the self-sabotager in a single person's story, the Rx Awareness campaign attenuated the persuasive force of the narrative format. A story that lacks logical cohesion threatens to obscure and complicate a straightforward health message: opioids can be dangerous when misused. In addition, the Rx narratives lacked efficacy information or insight on how the storytellers rebounded from "rock bottom" to recovery.

Narrative persuasion theorists have generated some empirical evidence in favor of using narratives over non-narrative messages in health campaigns, although evidence of superiority is mixed and contingent on the desired outcome (Braddock & Dillard, 2016). For instance, in a meta-analysis, Zebregs et al. (2015) found that statistical information was more effective in influencing cognitive responses, such as changing attitudes and beliefs, whereas the narrative format outperformed the statistical message in influencing affective responses, such as intention. The authors stated that health campaign strategists should match the message format to the desired outcome variable. In the case of the Rx Awareness campaign, evidence shows that

statistical information would be most effective in changing beliefs and attitudes about the risks of opioid prescriptions.

Designing Effective Campaign Narratives

Recently, studies examining narrative in the context of health communication have proliferated (Dahlstrom et al., 2017), building a new body of knowledge to guide health message and campaign design. Previous research has illuminated the many possible benefits of incorporating narratives into strategic campaigns, such as transporting viewers into an immersive storyworld (Green, 2006), procuring audience attention and message engagement (Kreuter et al., 2010), changing attitudes about health behaviors (Igartua & Casanova, 2016), and reducing reactance and message avoidance (Moyer-Guse & Nabi, 2010). In reviewing extant theory on the application of narrative in health promotion, Hinyard and Kreuter (2007) summarized the benefits of the narrative format as: overcoming resistance, facilitating observational learning, and influencing normative behavior through identification with relatable characters.

In practice, theories are evidence-based principles, or roadmaps, that communication practitioners can use to inform the campaign design and increase the probability of achieving a specified set of objectives, ranging from mere message exposure to behavior change (Crosby & Noar, 2010). When using authentic narratives, Thompson and Kreuter (2014) recommended health campaign designers 1) choose a point of view, 2) establish a health-related conflict, 3) determine the "shape" or structure of the story, 4) include vivid details, 5) evoke emotion, 6) use direct language, and 7) solicit feedback and revise. Reflecting on these literatures, we offer recommendations for a third wave of narratives selected and produced for the Rx Awareness campaign, as well as any health promotion message about opioid risks:

Highlight Structural Solutions

People with stigmatizing beliefs about individuals with OUD are more likely to support punitive policy to address the opioid epidemic and less likely to support structural solutions (Kennedy-Hendricks et al., 2017). Stories of individuals with OUD can detract the audience's attention away from societal causes of the opioid epidemic (McGinty et al., 2019), thus placing the emphasis on individual change rather than policy change. Opioid narratives must provide contextual information that explains the social, environmental, and political factors that create the conditions for someone to start using opioids. In addition, designers should take care to ensure that visual or video messages do not replicate stigmatizing beliefs about individuals with opioid use disorder.

Make the Health Message Prominent

One deterrent to using narrative in persuasive campaigns is the possibility of diluting the potency of the health message in a dramatic plot. Addressing this concern with an experiment, Moyer-Gusé, Jain, and Chung (2016) found that the most effective message design format combined narration and with an explicit follow-up health messageCampaign designers should use combined narrative and statistical messages to ensure their campaign delivers useful information in addition to a compelling drama.

Model Behavior and Efficacy

Green (2006) posited that health narratives can model positive cancer prevention behaviors. McGinty et al. (2019) concedes that narratives depicting people seeking treatment for OUD may be effective in reducing stigma against addiction therapies, but these stories could also convey that treatment is widely available. Rather, opioid narratives should highlight the dearth of resources available to people living in addiction to garner policy support for increased

accessibility to treatment. Additionally, Kennedy-Hendricks et al. (2019) found that news media coverage focused on the negative aspects of treating OUD patients with medication-assisted therapies. Campaign narratives should offer a counter-message to news stories and promote medical intervention by highlighting success stories of people who use MAT.

Attend to the Complexity of Human Emotion

Narratives elicit emotional reactions that are theorized to increase the persuasive potential of the message (Nabi & Green, 2015). However, human emotion is fluid and dynamic, and people will experience a variety of emotional responses throughout the courses of a narrative. More recent evidence suggests that narratives shifting from fear to hope can increase feelings of efficacy (Adams et al., 2020). Another recent study by Liu and Yang (2020) found discrete emotions mediated the effect a gain-framed narrative about e-cigarettes had on risk perceptions and behavioral intent. It is not sufficient to claim the emotionality of narrative messages increases their effectiveness. Rather, campaign designers must consider an array of emotions a view might experience as the narrative progresses, and specifically, how multiple, shifting emotions felt during a narrative contribute to an overall understanding or impression of someone with OUD.

Mirror Epidemiological Data

Further, opioid death trends tell a complicated story about the state of the nation's opioid crisis. In 2018, two-thirds of opioid overdose deaths in the U.S. were caused by a synthetic opioid, not an opioid prescription (Wilson et al., 2020). Whereas prescription opioid abuse caused the majority of drug overdose deaths from 2000 to 2012, the number of prescription-related overdoses has since declined. National statistics for opioid mortality do not yet distinguish between illicitly manufactured opioids and prescription opioids, and CDC officials

worry that increasing rates of synthetic opioid deaths have inflated estimates of prescription opioid deaths. Without the ability to accurately quantify prescription opioid overdoses, it may appear to the public that prescription opioids are still a driving factor (Seth et al., 2018).

Further, evidence shows that transformations in the drug development industry have changed the opioid narrative by shifting drug use behaviors. Cicero and Ellis (2015) found that introducing an abuse-deterrent formulation of the prescription drug Oxycodone resulted in a shift in drug choices, with 70% of survey respondents transitioning to heroin.

A challenge lies in communicating prevention messages to the public when the epidemiological data does not provide a tidy picture of causal factors that lead to opioid addiction. Health communicators must work with epidemiologists and other health-care experts to distill epidemiological data into relevant public safety messages that takes into account numerous risk factors for addiction – not only opioid prescriptions, but mental health and social environment. More information needs to be shared with the public on the benefits of keeping individuals linked to a medical provider who can either usher an individual into treatment or help manage the addiction in a way that prevents a switch or shift to street drug use.

Conclusion

The CDC's Rx Awareness campaign shares testimonials of individuals with OUD and surviving family members to promote a general awareness of the dangers of prescription opioids. Yet multiple contrasting explanatory frameworks for opioid addiction are communicated through the campaign. Opioid users are simultaneously victims of medical imprudence, escapists seeking a way out of inward turmoil, or self-sabotagers who pay for their destructive behavior. Unlike the news media discourses examined in the previous chapter, the opioid campaign discourses attend to multiple underlying or background conditions that lead to a person's addiction: a past

trauma, a hidden identity, or a mental illness. Similar to the news media discourse, engagement with a medical provider is framed as a risk for opioid addiction. Multiple contradictory explanatory frameworks overcrowd the narratives and prevent viewers from isolating the single factor that produced a person's addiction, and therefore, obscure any practical information that could help prevent the onset of addiction.

In stark contrast to the news media discourse, none of the personal narratives suggest that an individual deliberately pursued opioids or started using opioids through their involvement with illicit drug traders; all cases originate with a prescription opioid from a doctor. The campaign discourse implicates health-care providers as the initiators of a person's opioid addiction, thus undermining the medical profession's reputation and calling into question the integrity of a profession best equipped to manage and treat a person's opioid dependency.

Campaign designers would benefit from gaining the perspective of health-care providers who engage in interpersonal discourse with patients about the risks and benefits of prescription opioids. Rather than deterring individuals from engaging with the medical system and putting their trust in a medical professional, campaign messages might encourage patients to discuss opioid risks with a doctor who can manage their care and intervene should the patient develop a dependency. We turn to the intersection of mass media messages about opioids and clinical communication in the following chapter.

CHAPTER 4: HEALERS OR DEALERS? EXAMINING WHETHER OPIOID NARRATIVES IN THE MEDIA DISRUPT PATIENT-PROVIDER COMMUNICATION

Through "real stories" of people living in addiction recovery, the Centers for Disease Control and Prevention's Rx Awareness campaign underscores an alarming irony of the opioid crisis: doctors, the nation's healers, have introduced opioid dependence to millions of Americans through injudicious prescribing. In the campaign's flagship ad, Brenda describes getting in a car accident and receiving an opioid prescription from her doctor:

> "When I was first prescribed my prescription pain meds, there was no one to tell me that these have a really high potential for addiction," Brenda laments in the 30-second video. "How can I be addicted? I get these from my doctor." (CDC, 2017)

Undoubtedly, injudicious prescribing at the turn of the century led to high rates of iatrogenic opioid addiction, ushering in an era of "pharmacovigilance" in which doctors reduced their reliance on opioid therapies (Knight et al., 2017). Media messages that frame medical providers as culpable for the opioid epidemic constitute a form of compromising information that enters the protected sphere of clinical communication (Southwell & Thorson, 2017). Terms like "dirty doctor" or "dealer in white coat" discredit, demean, and generalize extreme cases of overprescribing to the entire medical profession. These incriminating media messages have dire consequences for reversing the course of the opioid epidemic, such as delegitimizing doctor's role in driving solutions and implementing policies that limit prescribing but actually drive patients to riskier alternatives (Ballantyne & Kolodny, 2015).

Drawing on a body of research that examines the trickle-down effect of mass media messages to interpersonal communication, we predict that mass media campaigns infiltrate the medical consultation, exacerbating the tensions and disrupting a fragile balance of power that must occur for providers to deliver patient-centered care. The goals of the current survey study are: 1) to understand health-care providers' (HCP) sense of efficacy to prescribe opioids safely to patients; 2) to gain insight on the impact of opioid media on the clinical consultation from the perspectives of HCPs; and 3) to assess HCP perceptions of opioid awareness campaign messages that frame opioid addiction as resulting from iatrogenic exposures to opioid prescriptions. This research represents a critical first step in evaluating a disjoint between the realities of clinical discourse and opioid prevention campaign messages, producing insight into how health-care providers can help inform messages that accurately reflect the risks and appropriate usages of prescription opioids, and potentially correct misleading claims perpetuated by media sources.

The Evolution of Opioid Prescribing

America's opioid epidemic ignited at a moment in history when physicians were encouraged to address pain with the same rigor as they address physical vital signs (Ballantyne & Kolodny, 2015). In fact, at the turn of the century the Institutes of Medicine (IOM, 2001) declared high rates of uncontrolled pain a major public health concern, calling on doctors to aggressively combat the symptoms of pain expressed in patients. Physicians responded by prescribing new formulations of opioid analgesics marketed as safe, non-addictive, and suitable for long-term pain management. This was the first in a series of missteps in the medical field paving a path to the opioid epidemic.

Combined with the introduction of Oxycodone, the prioritization of pain relief preceded a steep rise in opioid prescription rates that continued to escalate throughout the twenty-first

century (Ballantyne & Kolodny, 2015). As the historical narrative of the opioid epidemic took shape in the past decade, public health researchers, journalists, policymakers, celebrities and even doctors themselves have blamed the medical profession –specifically "dealers in white coats" – for liberal prescribing practices that have resulted in millions of Americans developing a dependency or addiction to opioid prescriptions. This public pointing of fingers stands to jeopardize the long-standing positive perception of physicians as ethical, honest, and beneficent healers in American society.

Trust in the Medical Institution

Until recently, public trust in the medical profession had steadily dropped since the mid-twentieth century, when 73% of Americans reported confidence in medical leaders (Blendon, et al., 2014). In 2014, only 23% of Americans reported a high level of confidence in the medical system's leadership. Six in 10 Americans agreed with the statement, "All things considered, doctors can be trusted." In 2020, with the public depending on medical professionals to orchestrate a response to the coronavirus outbreak, the public's view of doctors and medical scientists improved drastically in a short period, with more than 74% of respondents in a January 2019 Pew Survey reporting they had a positive view of doctors. Half of Americans agreed that doctors always or usually care about their patients' best interests, yet smaller shares agreed that doctors are transparent about conflicts of interest with industry groups and take responsibility for mistakes (Funk & Gramlich, 2020). The public's lingering concerns over industry influence on medical practice and doctors admitting their mistakes could be related to perceptions of doctors' fallibility in prescribing opioids.

In contemporary medicine, more doctors have treated health care as a purchased commodity, acknowledging the individualistic needs of patients (Bardes, 2012) and adopted a

model of patient-centered care (PCC) (Epstein & Street, 2011; Street, 2003). In PPC, doctors entreat patients to participate in medical decision making by disclosing their personal values and treatment preferences (Epstein & Street, 2011). The patient and his doctor collaborate as partners sharing the responsibility for both the process and the outcome. The flaw in this metaphor, Bardes (2012) argued, is a stipulation that the centrality of power must not gravitate toward one member of the doctor-patient relationship. In ideal circumstances, doctor and patient will "coexist in a therapeutic, social, and economic relation of mutual and highly interwoven prerogatives" (p. 783), yet, patients and doctors rarely achieve perfect uniformity as they bring different levels of knowledge to the medical encounter.

Media Portrayals of Physicians

Endangering patient-physician trust, narratives in popular media have framed physicians as over-prescribing catalysts of the opioid epidemic. In his bestselling nonfiction account of the crisis, journalist Sam Quinones (2015) described the proliferation of "dirty doctors" and "pill mills" in Appalachia (p. 197). National news outlets have followed the criminal and court cases of doctors who injudiciously overprescribed or misappropriated opioids to vulnerable patients. In a 2015 interview with CSPAN, Andrew Kolodny, a New York physician and advocate for responsible opioid prescribing, warned patients against trusting doctors, recalling the case of a doctor who prescribed the equivalent of a "heroin pill" to a teenager (Anson, 2017). With the headline "Drug Dealers in White Coats," an October 2018 article in *The Washington Post* reported that five New York physicians were arrested for selling opioids to street dealers (Kanno-Youngs, 2018).

Public awareness campaign messages, including those part of the CDC's national Rx Awareness Campaign launched in 2017, contain a thematic undercurrent of physician blame

(CDC, 2017). The campaign leveraged web banner ads, 30-second testimonial videos, social media ads, and online search ads designed to deter individuals from using nonmedical opioids and "increase the number … who choose options other than opioids for safe and effective pain management" (CDC, 2017). While implicit, causal attributions nested in opioid campaign messages indict doctors for exposing naïve patients to addictive drugs. These ads characterize physicians as indiscriminate and unethical, thus blemishing the long-standing public image of physicians as moral, ethical, and beneficent healers

To date, few studies have explained a relationship between health campaign messages and public perceptions of doctors. In an analysis of opioid news coverage from 1998 to 2012, McGinty et al. (2016) found that news articles framed the public health crisis as a criminal justice issue, with most stories mentioning legal solutions to prevent the dispersion of prescription opioids in society. A small minority (5%) of news articles analyzed for the study contained any mention of medical solutions to help individuals with OUD. These findings suggest that newsmakers either misperceive opioid addiction as a moral failing or deliberately emphasize the criminal and sensational aspects of the epidemic, such as drug-seeking behavior. Journalists, health communicators, and campaign designers must consider the potential consequences of positioning physicians as instigators of a person's downfall to opioid addiction.

A related area of research examines the extent to which Americans attribute the opioid crisis to the medical profession. Barry et al. (2015) found that 73% of Americans think that doctors are responsible for individuals developing an OUD, with 59% agreeing that it's too easy for patients to get opioids from multiple doctors and doctors keep patients on pain medication for too long. In a survey of primary care physicians (PCPs), Kennedy-Hendricks et al. (2017) assessed the extent to which physicians felt responsible for addressing the opioid epidemic. PCPs

cited a combination of individual-level causes and physician-related causes of prescription OUD. Notably, 83% of physicians agreed that members of their own profession are socially responsible for addressing the opioid epidemic.

Misleading Health Information

The mass distribution of misinformation, or information lacking a "truth value" (Habermas, 1987), threatens the welfare of society by perpetuating incorrect perceptions, which influence attitudes and behavior (Southwell, Thorson, & Sheble, 2017). In terms of perpetuating erroneous claims about health topics, misperceptions are equally as detrimental to public knowledge as false information. Misleading claims deceive health consumers by exaggerating an effect beyond available evidence or de-emphasizing important details necessary for contextualizing the effect (Boudewyns et al., 2018). Marsh and Yang (2018) observed that, at the societal level, misinformation and falsehoods are propagated through mass media and interpersonal conversations. Some evidence from Aiken et al. (2015) suggests that misinformation is difficult to overturn with follow-up corrective messaging. Thus, physicians might have a difficult task instilling trust in patients who have been exposed to mass media messages exaggerating the medical system's involvement in the opioid epidemic.

Media campaign researchers have endeavored to expand theory that traces the flow of campaign messages to face-to-face conversations. Southwell and Yzer (2007) proposed that media campaign messages filter through social networks and eventually manifest in interpersonal conversations, offering a "sort of relevant grist for the conversation mill" (p. 4). The theoretical linkages between mass media campaign effects and interpersonal conversation are particularly relevant to the patient-provider conversation, a context in which health messages circulating in

the media collide with the knowledge of experts who have pledged to "first do no harm" to their patients.

Our survey study attempts to understand whether physicians perceive that opioid-related media messages have perpetuated misinformation about their profession's role in the opioid epidemic. We also seek to determine whether these opioid-related messages have infiltrated the protected medical consultation where HCPs must gain trust and compliance from their patients. We predict that HCPs' exposure to opioid-related news media will influence their perceptions of responsibility and efficacy for the epidemic. We also predict that HCPs whose patients mention opioid-related media messages during clinical consultation will sense their patients are misinformed about legitimate medical indications for prescription opioids. Thus, we posit the following research questions:

- RQ1: To what extent do HCPs attend to opioid news and campaign media?
- RQ2: To what extent do HCPs believe the CDC Rx Awareness message spreads misinformation about opioid risks?
- RQ3: To what extent do HCPs perceive their own self-efficacy to prevent opioid misuse?
- RQ4: To what extent do HCPs perceive the medical profession, the pharmaceutical industry, individual patients who use opioids, and politicians are responsible for causing the epidemic?
- H1: HCP-reported patient media mentions will positively relate to HCP perceived patient misinformation.
- H2: HCP-reported patient media mentions will negatively relate to HCP self-efficacy.

- H3: HCP media exposure will positively relate to HCP perceived patient misinformation.
- H4: HCP media exposure will negatively relate to HCP perceptions of patient trust.

Method

Sampling

We recruited a purposive sample of HCPs, primarily physicians, employed at Duke University. Investigators opted for purposive sampling because of previous research showing low response rates in physician populations (Cunningham et al., 2015). We included advanced practice providers in the survey because these providers have some prescribing responsibilities. The investigators obtained access to a sampling frame, the email address lists of all employed medical doctors and residents within the medical system through partnerships with department chairs and opioid educators. Institutional Review Board approval was obtained at the partner institutions prior to launching the study in December 2018.

Procedures

A team of interdisciplinary researchers recruited a sample of HCPs (n = 264) from Duke University to complete a survey about perceptions of opioid-related media messages. Using Qualtrics survey software, the PI programmed an electronic survey including the 30-second "Brenda's Story" Rx Awareness video. The survey was reviewed by two physician sponsors and pilot tested on 13 multidisciplinary physicians, undergoing a series of revisions directed by physician feedback prior to dissemination.

Participants were recruited with a personalized email invitation to participate in an electronic survey about their opinions on opioid media messages. The email, authored by the PI in partnership with a sponsor physician, was disseminated to 2,041 clinical staff email addresses

listed in the Duke Medical System institutional database. We obtained informed consent electronically by explaining the minimal risks of participation, guaranteeing participant confidentiality, and asking physicians to mark a box confirming their consent to participate. Physicians were provided with a link to an electronic survey, which took 5-7 minute to complete. Participants were required to hold a medical degree (MD or DO) and work as a physician (faculty, fellow, or resident) or advanced practice provider (e.g., nurse practitioner) within the Duke University health care system.

The survey contained questions about the physician's sense of social responsibility to help resolve the opioid epidemic, opioid media exposure and attention, and perceived patient misinformation about opioids. We also collected demographic variables, including age, gender, race, and designation within the medical system. We measured prescribing patterns by asking physicians to report frequency of prescribing on a seven-point scale (*1 = never*, *7 = more than 15 times per week*).

As an incentive, participants were given the opportunity to win a charitable donation of $100 to a non-profit organization of their choice. To be eligible for the incentive, they agreed to provide their email address after being redirected to an entry website at the conclusion of the survey. All identifying data was stored separately from the survey data and deleted at the conclusion of the data collection period.

Measures

Perceived responsibility for the opioid epidemic was measured with a series of items, which were adapted from Kennedy-Hendricks et al., 2017. HCPs rated the extent to which they believe the following groups were responsible for the opioid epidemic: the medical community, pharmaceutical companies, individual patients who use opioid prescriptions, policymakers, and

primary care providers. Items were rated on a five-point Likert-type scale (*5 = extremely responsible, 1 = not responsible at all*).

Perceived self-efficacy refers to the HCP's level of confidence in helping patients achieve a clinically relevant goal, such as effectively preventing opioid misuse. We adapted Bleich et al.'s (2015) Physician Efficacy Scale, which examined physicians' perceived self-efficacy to help patients reach weight-loss goals. The scale contained two items measuring physicians' perceived confidence and perceived success in preventing opioid misuse: "How confident/successful are you in your ability to help patients prevent opioid misuse and abuse?" (*5 = strongly agree, 1 = strongly disagree*). The two items were averaged to create a composite safe prescribing efficacy score (M = 3.06, SD = .88, r = .64).

Opioid news media exposure was conceptualized as the extent to which physicians are routinely exposed and attend to opioid-related news (de Vreese & Neijens, 2016). In a review of self-reported media exposure measures, de Vreese and Neijens (2016) provided unaided recall questions that prompted participants to think about the frequency of media exposure within a certain timeframe. Exposure was measured with the item, "In the past week (7 days), how often did you encounter information about opioids in the news?" (*5 = every day, 1 = never*). Attention was measured with a Likert scale asking participants, "How much attention do you pay to opioid media coverage?" (*5 = a large amount, 1 = none).* The two items were averaged to calculate a composite media exposure score (M = 2.79, SD = .93, r = .42).

HCPs also reported *opioid campaign exposure*, or the ability to recall seeing an opioid awareness advertisement in the past month (Sly et al., 2001). We used a categorical question (*1 = yes, 0 = no*) asking participants to recall whether they had seen any opioid awareness message in the past month.

Perceived patient misunderstanding was operationalized as the degree to which physicians believe patients are generally misinformed about opioids. Based on the dimensions of untruthfulness and misinformation described by Southwell and Thorson (2015), we developed a four-item patient misinformation instrument with items specifically asking about the state of patient understanding, accuracy, misperceptions, and confusion (*5 = strongly agree, 1 = strongly disagree*). Items included "My patients' understandings of opioids are inaccurate," "My patients are confused about the appropriate use of opioids," "My patients are misinformed about opioids," and "I often need to correct my patients' misperceptions about opioids." The four items were averaged to create a composite perceived patient misinformation score (M = 3.49, SD = .80, a = .90).

Patient media mention referred to the level of frequency in the past month that patients mentioned opioid media sources during clinical conversations. The variable was measured with a single item asking participants to report "how often patients mention information about opioids they've seen in the news or in an advertisement" (*5 = very frequently, 1 = never; M* = 2.32, SD = 1.0).

Perceived patient trust was measured on a five-point Likert scale with three items adapted from Müller, Zill, Dirmaier, Harter, and Scholl's Trust in Physician Scale (2014). Items included, "When it comes to opioid prescribing, my patients …" (*know I care about their safety/know I am extremely cautious/completely trust my decisions*). The three items were averaged to create a composite perceived patient trust score (M = 4.20, SD = .73, a = .86).

Perceived misleading information was operationalized as physicians' belief that the *Rx Awareness* message exposes patients to false or misleading claims about the opioid epidemic. We adapted a two-item instrument from Aiken et al. (2015) including "this message contains

misleading information about doctors" and "this message contains untruthful information about doctors" (*5=strongly agree, 1=strongly disagree*). The two items were averaged to create a composite message misinformation score (M = 3.20, SD = .95, r = .80).

Perceived message bias was measured as the extent to which physicians believe the *Rx Awareness* ads provide a skewed or unfair representation of their profession's role in the opioid epidemic. We adapted Kim's (2017) perceived media bias scale, which includes dimensions of content bias, content fairness, and author bias, and measured using a three-item Likert scale (*5=strongly agree, 1=strongly disagree*). The three items were averaged to create a composite score (M = 3.27, SD = .97, a = .93).

Results

Sample Statistics

The sample included Duke HCPs (N = 264) ranging from ages 30 to 77. The sample comprised predominantly white (54%) physicians who worked as attendings (79%). The sample included 103 male and 83 female respondents, with 75 not answering and three selecting "other or prefer not to say." Sample statistics are shown in Table 8.

HCP Perceived Group Responsibility

More than half of participants (53%) said that the medical profession was somewhat responsible for the opioid epidemic, whereas 32% said the medical profession was "very" responsible. Most participants agreed (67%) that pharmaceutical companies were "very" or "extremely" responsible for the opioid epidemic. A considerable number of participants (53%) also said individual patients were either "very" or "extremely" responsible. Participants also assigned responsibility to policymakers, with 42% saying policymakers are "somewhat responsible" and 29% saying policymakers are "very responsible." See Table 9.

HCP Media Exposure

RQ1 asked to what extent HCPs were exposed to opioid news. Nearly half of all respondents (44%) encountered opioids in the news 1-2 days per week, whereas about 22% encountered opioid news 3-4 days a week and 26% encountered opioid news 5 days a week or more. A smaller percentage (7.8%) reported never encountering opioid information in the news.

Perceptions of Rx Awareness Ad

RQ2 asked whether HCPs believed the CDC Rx Awareness message contained misinformation about opioid risks. Most respondents (72.6%) had viewed any opioid awareness campaign message in the past month but were largely unaware of the CDC's Rx Awareness campaign. In fact, only 4.5% of respondents had previously seen the Rx Awareness ad "Brenda's Story" presented in the survey. Substantial proportions of respondents agreed or strongly agreed that the message was biased against doctors (46%) and that the message was an unfair representation of the doctor's role in the opioid epidemic (44%), while about a third (29%) agreed that whomever created the message was biased against doctors. Nearly half (47%) agreed or strongly agreed that the message contained misleading information and about a third (28%) agreed or strongly agreed that the message contained untruthful information about doctors.

Perceived Self-Efficacy to Safely Prescribe

RQ3 asked how HCPs assessed their own self-efficacy to prevent opioid misuse in their patients. Physicians were split in how they rated their confidence in helping patients reduce opioid misuse, with 50% stating they were "somewhat confident," 27% stating they were "extremely" or "very" confident, and the remaining 23% stating they were "a little confident" or "not confident at all." When asked how successful they were at preventing opioid misuse and abuse, respondents were also split, with 48% reporting they were "somewhat successful," 32%

reporting they were “very” or “extremely” successful, and the remaining 20% reporting they were only “a little” or “not successful at all.”

Predictors: HCP-reported Media Mentions and Media Exposure

H1 predicted that HCP-reported patient media mentions would positively relate to HCP perceived patient misperceptions. We conducted a multiple linear regression model predicting perceived patient misinformation and controlling for HCP age and gender. We found that patient media mentions positively predicted perceived patient misperceptions ($\beta = .239$, $p < .001$).

H2 posited that greater HCP-reported patient media mentions would predict provider perceptions of distrust in the clinical environment. This was unsupported ($\beta = .045$, $p = .55$).

H3 stated that HCP-reported patient media mentions would negatively relate to HCP self-efficacy to safely prescribe opioids. This was also unsupported ($\beta = .08$, $p = .30$)

H4 predicted that the HCP’s level of media consumption would positively predict the HCP’s perception that patients have misperceptions about opioids. H4 was supported, as greater exposure to news media predicted higher levels of perceived patient misunderstanding ($\beta = .239$, $p = .001$). See Table. 10.

H5 posited that HCP media exposure would negatively relate to HCP perceptions of patient trust. This was unsupported by this data, although the model was trending toward significance ($\beta = .13$, $p = .08$).

Finally, H6 predicted that HCP media exposure would negatively relate to HCP perceptions of efficacy to safely prescribe opioids. This was also unsupported ($\beta = .126$, $p = .105$).

Discussion

The present survey assessed whether information about opioids transmitted from the news media enters the protected sphere of patient-provider communication. We evaluated HCP perceptions of the CDC's mass media campaign to increase awareness of the risks of opioid prescriptions. In addition, we reasoned that media messages implicating the medical profession for causing the opioid crisis could influence the provider's perceptions of patient trust, patient misinformation about opioids, and efficacy to safely prescribe opioids. We elicited the perspectives of HCPs to determine whether their news exposure or their patients' tendency to ask about opioid information appearing in the news media compromised clinical interactions.

An important finding was that the vast majority of HCPs (95%) had no prior exposure to the CDC's flagship Rx Awareness campaign message "Brenda's Story," suggesting that the medical community was unaware of the potentially incriminating campaign messaging. Nearly half of the sample agreed that the message unfairly represented and contained misinformation about doctors' role in the opioid epidemic, and about a third said the ad contained false information. Most of the HCPs reported exposure to another opioid campaign in the past month, which suggests that doctors were more attuned to other public health messages about opioids.

We also found evidence that high levels of media exposure in the HCP predicted perceptions of patient misinformation. Younger HCPs who consumed higher levels of opioid media were more likely to assess their patients as misinformed about opioids. It is plausible that the causal chain we propose is reversed: that patients who are misinformed about opioids are more likely to see younger doctors. We reason that HCPs who are younger and consume more news media are exposed to negative messages about their profession's role in the crisis, and therefore, are preconditioned to believe their patients accept incriminating media messages about the medical profession as fact. In addition, HCPs whose patients brought up opioid-related news

in the clinical encounter were more likely to assess their patients as misinformed about opioids. This finding suggests that patients who alluded to opioid information from a media source during consultation conveyed a lack of knowledge about opioids to their provider. Future research should attempt to isolate the causal relationship between perceptions of misinformed patients and younger, more media-exposed providers.

We did not find support that opioid media messages infringed on patient-provider trust, at least from the perspective of HCPs who reported high levels of perceived patient trust. Nor did we find support that opioid media messages reduced the HCPs self-efficacy to prescribe. These findings are encouraging in suggesting that patient misinformation, while problematic, has not had a deleterious effect on trust or the HCP's confidence to safely prescribe. Still, it is noteworthy that in this sample patient trust was high (M = 4.20, SD = .63) but the sample was split on efficacy in opioid prescribing (M = 3.06, SD = .88).

Public health agencies sending out mass media messages about a widely feared and misunderstood health crisis should consider how misleading messages disrupt a balance of trust and reciprocity in clinical interactions. Prior research has shown that multiple conflicting objectives in a patient-provider interaction can exacerbate tensions related to the HCP's decision to prescribe an opioid (Adams et al., 2018). Health communication research has indicated that interpersonal conversations are junctures where mass campaign information about opioids can be reinforced, clarified, or corrected (Southwell & Yzer, 2007). A holistic campaign planning strategy should determine where, when, how, and to what extent campaign messages arise in interpersonal conversation after message exposure. A prudent strategy for preventing misinformation is involving medical providers in the campaign planning process, perhaps even

pilot testing the campaign on a subset of healthcare providers who are accustomed to correcting false information about opioids in clinical encounters.

On the other hand, the medical profession cannot dismiss the reality that patients will continue to bring preconceived notions about the safety of opioid prescriptions to the doctor's office for the foreseeable future, and much of the public's information will originate from media exposure. When communicating about opioids – or any contentious medical issue, for that matter – HCPs must acknowledge that patients internalize multiple conflicting and often fragmentary narratives from the media (see Chapter 2). While HCPs have less control over media messages promulgated about the doctor's role in the opioid crisis, they have the ability to set the tone of conversations about opioids in the clinical setting. Specifically, HCPs should invite patients to share their personal thoughts and beliefs about prescription opioids and attempt to unravel misperceptions about opioids (Street & Epstein, 2011), thus providing clarity and comfort to patients who are anxious about receiving an opioid prescription.

Limitations and Future Directions

Future research should attempt to understand the intricacies of patient-provider communication centered on opioid prescriptions and the infringement of misleading messages in the news media by analyzing actual patient-provider conversations where media information resurfaces. In addition, future research on the media's influence on the opioid-prescribing clinical encounter should balance the perspectives of physicians with the perspectives of patients. We realized that measuring only physician perspectives of the clinical encounter provides a one-sided view favoring the expert.

CHAPTER 5: NARRATIVES OF REDEMPTION AND PREVENTION IN OPIOID OVERDOSE OBITUARIES

Before his untimely death at 24 years old, Nick Hawkins was a squadron leader in the Marine Corps. As a youth football player, he embraced camaraderie and teamwork, always willing to "pick people up" with encouraging words and a "contagious smile" (Hawkins, Nicholas, 2017). Sensitive, smart, charming, and handsome, Nick was "deeply loved" by his family, especially a young nephew. He had a huge heart and a promising future. Yet, before describing Nick as an adored uncle, selfless teammate, or rising military leader, Hawkins's obituary delivers a statement about his struggle with opioid addiction.

The American media has promulgated tales of wasted young lives, unrealized potential, shattered dreams, and bewildered, heartbroken parents who fervently believe the opioid epidemic should never have "happened" to their children, their families, or their communities (Netherland & Hansen, 2016). Nick's obituary contains elements traditionally found in obituaries and relays Nick's personal qualities and characteristics, but the text also serves to medicalize drug addiction, destigmatize drug users, and forewarn society about the risks of opioids. Nick's obituary, like many obituaries of young Americans who overdosed on opioids during the ongoing opioid epidemic, not only memorializes a cherished life but communicates a broader social and political message about a national health crisis.

With opioids and heroin causing one-fifth of all premature deaths in people ages 24 to 35 (Gomes, 2018), families are increasingly disclosing their loved one's struggle with opioid

addiction through public obituaries (Seelye, 2015). Obituaries of ordinary people who died from an opioid overdose represent an unexplored territory for understanding cultural narratives of America's opioid epidemic told through mass media sources. Drawing on textual analysis of 30 obituaries published between 2017 and 2020, we describe a prototypical narrative conveyed through opioid overdose obituaries that renders symbolic meaning through the voices of the bereaved. Obituary authors reimagine their subjects as tragic heroes and reconstitute opioid addiction as a curse, plight, or affliction that befalls its victims. Many of these obituaries invoke the language of public health, calling for reform, action, or general awareness so other families might avoid the havoc and heartbreak of opioid addiction. We argue that obituaries contribute to broader cultural narratives of opioid addiction by reproducing tragic storylines, vindicating and humanizing the deceased, framing opioid addiction as a societal, rather than individual, problem, and medicalizing addiction as a brain disease beyond a person's control. Obituary texts thus attach a person's likeness and experience to a broad societal health crisis, transforming narratives of the deceased into cautionary tales and public health warnings.

How Media Depictions Give Meaning to the Opioid Epidemic

Of the more than 67,000 drug-related deaths counted by the Centers for Disease Control and Prevention in 2018, 70% were caused by an opioid (Wilson et al., 2020). Experts chronicling the epidemic attribute the rise of opioid addiction to a confluence of factors, including a trend toward liberal medical prescribing for chronic pain, aggressive marketing tactics by pharmaceutical companies, socioeconomic downturn in rural communities, and increasing availability and demand for illegal opiates, including black tar heroin (Quinones, 2015). What started as a problem created by complicit physicians and deceptive marketing ploys has morphed through the past two decades into a multifaceted drug crisis, with illegal heroin and fentanyl

today replacing prescription painkillers as the pendulum swung back toward judicious oversight of opioid medications (Knight et al., 2017). Today, synthetic opioids account for the majority of drug-related deaths (Wilson et al., 2020).

With a colorful cast of characters including unscrupulous doctors, drug lords and street dealers, profit-obsessed pharmaceutical reps, and unwitting middle-class families, dramatic tales of opioid addiction abound in American media. Webster et al. (2020) tracked themes in news coverage of the opioid epidemic from the turn of the century, finding that media narratives have evolved from unsafe prescribing of opioids to criminal portrayals that stigmatize people with opioid use disorder. Drawing on a longitudinal analysis of opioid epidemic news framing 1998 to 2012, McGinty et al. (2016) found that criminal activity was a persistent cause of opioid abuse cited in television and print news coverage while prevention-oriented approaches to opioid addiction only appeared in 5% of news stories. A subsequent analysis found that stigmatizing language was used in nearly half (49%) of news stories published in high-circulation news media sources between 2008 and 2018 and increased throughout the decade (McGinty et al., 2019).

Popular media narratives circulate and concretize causal explanations for how a specific socioeconomic class are susceptible to opioid addiction. Mendoza et al.'s (2018) interviews with Staten Island physicians and families suggested that participants construct a narrative of white victimization and deflect blame for opioid abuse in their community to the medical system and infiltration of predatory drug dealers from urban areas. Netherland and Hansen (2017) describe disparities in media representations of white middle-class opioid addiction and urban black- and brown-skinned opioid addiction. They observed that white, middle-class opioid use was accompanied with a causal explanation – an underlying depression, a surgery that resulted in an

opioid prescription, or a struggle for acceptance in a peer group, whereas depictions of black- and brown-skinned opioid use were absent of any context that would conjure sympathy.

Similarly, Daniels et al. (2018) argue that the popular television programs *Law and Order* and *Intervention* invited audiences to cheer on white female drug users in their attempt to reclaim the white ideal of sobriety through hard work and resilience. Television portrayals humanize addicted women and highlight their redemptive potential even after they've committed a crime. Stereotypes of middle-class, white vulnerability and victimization are evident in Sam Quinones's book *Dreamland* (2015), which tells the stories of suburban youth in Portsmouth, Ohio – the "charismatic golden youth" and "cool jocks" (p. 291) of rural America – whose death notices were shrouded in "palatable euphemisms and lies" (p. 288) to protect their families from the stigma of their opioid-induced deaths.

Outcries of Grief: How Individuals Locate Meaning in Loss

For many families grieving a loss related to opioid addiction, telling stories is a way of finding meaning that transcends the dread and social stigma of opioid death. Kleinman observed that the bereaved do the "work" of remembering not only to reconstitute the lost loved one but to "project and reaffirm key meanings in our lives" (Kleinman, 2016, p. 2596). Performing a secondary therapeutic function, the obituary provides a venue for outcries of grief through which the bereaved may reconstruct the image of their loved one in a manner consistent with their fondest memories and most meaningful aspects of their relationships. In the case of opioid death, the bereaved accomplish the "work" of remembering a person removed from their vulnerabilities and vices while negotiating meaning and vindicating the deceased of a tainted legacy. Frankl (1992) theorized that humans have a unique potential to transform suffering into an accomplishment, derive from guilt the opportunity for self-improvement, and interpret life's

ephemerality as a motive to take responsible action (Frankl, 1992). His concept of "tragic optimism" presupposes that life and death can be meaningful under the most deplorable circumstances.

For those mourning a person who died because of opioid use, a tragic optimism imbues the discourses of remembrance as survivors draw meaning out and significance out of a senseless loss. Instead of denunciating or protecting the deceased and their families from reputational harm, the opioid obituary author strategically elevates aspects of the person's life that may comfort others, inspire societal or political change, or prevent subsequent tragedy. Thus, in reframing the opioid death, the author perpetuates a moral lesson while preserving a favorable image of the deceased.

Newspaper obituaries project ideologies of the virtuous life at historical moments (Hume 2000). Thus, the obituary serves as a cultural artifact that can attune scholars to collective societal beliefs and values at a particular moment in history. Hume (2000) identified four elements – the identity of the deceased, the cause of death, the attributes of the deceased, and the description of funeral arrangements –which constitute a well-lived life. Obituaries define the attributes of a life deserving of public commemoration while repressing lives considered unworthy of commemoration.

Other scholars have observed how obituaries simultaneously memorialize a life and refract cultural beliefs. Alali (1994) described how obituaries of young men who died from AIDS appearing in *The New York Times* reflected conservative social values, linking an emerging disease to an assumption about the consequences of sexual deviance. How the obituary communicates about a person who dies of opioid overdose remains ripe for analysis because it communicates a set of societal values and norms. The opioid obituary might challenge Hume's

assumption that obituaries are reserved for the life well-lived; rather, opioid obituaries construct a coherent narrative of a life worthy of recognition in spite of stigma and shame, thereby projecting cultural understandings of a broader societal problem.

Illness Narratives

The opioid obituary is an instrument for telling the story of someone who endured suffering. Narratives are symbolic representations of lived experience that hold meaning for those who live, create, or interpret them (Fisher, 1989). Illness narratives are accounts told and retold by patients and their significant others to give coherence and order the biological disruption of illness (Kleinman, 1988). Whereas medicine constitutes illness as manifest bodily symptoms and culture assigns collective meaning to different kinds of illness, sick persons and their families "fashion serviceable explanations of the various aspects of illness and treatment" (Kleinman, 1988, p. 45).

Sociologist Arthur Frank (2013) contended that illness narratives evoke a sense of "being shipwrecked by the storm of disease" (p .54), and telling self-stories is a sort of "repair work" that allows patients to rebuild from the wreckage. However, the narrative told by the patient wading through an illness experience is continuous and emergent, and, as Mattingly cogently argued, "no life as lived has the congruence of the well-told tale" (Mattingly, 2000, p. 205). In the clinical context Kirmayer (2000) asserted that illness narratives are "fragmentary and contradictory" – or broken – and thus are not coherent, complete events but locally produced essays of meaning constructed against a backdrop of structural restraints and cultural expectations. The opioid obituary's fidelity to literary form – containing a clear beginning, middle, and definitive tragic end to a person's opioid addiction – thus marks its distinction from the emergent illness narrative. Although the bereaved are engaged in a therapeutic process of

rebuilding a lost loved one's life and extracting meaning in the midst of their grief, the obituary carries the gravity of a punctuated end point, issuing the final word on how a person's opioid-corrupted life should be interpreted.

Obituary History and Structure

One of the oldest conventions in the news industry, obituaries have performed a public service of notifying community members of the death of a fellow constituent (Lende, 2015). In a 2006 article written for *Quill*, the trade journal of the Society of Professional Journalists, obituary beat writers were instructed to include the deceased's name, age, place of residence, date of death, location of birth, education, work history, military service, honors, volunteerism, memberships, hobbies, surviving relatives, location of funeral, and the contact information for the funeral home (Baranick, 2006). However, in the past two decades, the journalism industry has commodified obituary writing services to generate a stream of advertising revenue making up for lost profit from dwindling print sales (Starck, 2008). While the obituary became a "lucrative instrument" for keeping small-town newspapers afloat in the twenty-first century (p. 447), news organizations sacrificed editorial quality for revenue, allowing submitted and loosely edited entries to fill the classified pages.

Reborn as classified or paid content, modern obituaries are vetted and minimally edited by news staff as a formality and favor to the purchaser. With limitations on the amount of content they can produce, journalists write obituaries exclusively for prominent public figures. Obituaries for ordinary individuals are typically composed by a loved one, a professional or freelance writer hired by the bereaved, or a funeral home employee. The bereaved are endowed with a high degree of leniency in reconstructing the deceased's life and legacy, often using the platform as an opportunity for veneration and glorification. A recent how-to article appearing on

NBC News's website encouraged amateur obituary writers to reflect on the deceased's best qualities, including descriptions of their loved one's proudest moments and the personality traits that made him or her "extra special" (Spector, 2019). Increasingly in the digital age, the traditional news gatekeepers are bypassed by family members, friends, amateur or freelance writers, and social media users who crowdsource information about the deceased (Graham, 2017). Today, the dominant voices represented in a private person's obituary are those of the bereaved.

In engaging in the reflexive and generative act of remembering a person's life, those who construct obituaries draw upon preexisting explanatory frameworks available within their cultural and social context (Garro, 2000). The biographical truth of an overdose victim's life remains a matter of "verisimilitude rather than verifiability" (Garro, 2000, p. 109) as the writer employs rhetorical strategies and literary devices, such as imagery, character development, and plot, to enhance the believability of the retold account. Obituary writers weave together the strands of a loved one's struggle with opioid addiction to craft a coherent and socially acceptable narrative. The writer strategically selects language to emphasize certain aspects of a person's life and character and embed the narrative with a persuasive message about the gravity of opioid addiction in America. In this sense, the opioid obituary is a performative account of a bygone life infused with moral meaning and pedagogical force.

Method

We conducted a search of the phrase "opioid overdose" on Legacy.com for entries between January 2017 and January 2020. With more than 40 million visits a month, Legacy.com is the top national online archive of obituaries sourced from more than 1,500 local newspapers and 3,500 funeral homes in the United States, Canada, New Zealand, Australia, and Europe. We

eliminated articles that did not specify opioids or heroin as the cause of death, were published outside North America., and were devoid of any supplementary information about the individual's life, such as education, hobbies, characteristics and traits, and notable achievements (Hume, 2000). We also included two obituaries identified in a local South Carolina newspaper article during a preliminary search and which were posted on Legacy.com. The resulting sample included 30 opioid overdose obituaries published online between January 2017 and January 2020.

The obituaries included in our sample were published in local and regional newspapers around the United States, including New York, Ohio, Georgia, South Carolina, Kentucky, Massachusetts, Tennessee, New Jersey, and Wisconsin. Most obituaries were published in community newspapers, but one obituary appeared in the *Washington Post*. We engaged in an iterative analysis of the text, categorizing themes and reducing themes to conceptual categories, to develop a narrative archetype for the opioid overdose obituary. We account for negative cases in our analysis.

Because the content was widely publicized and publicly available through Legacy.com and online newspapers, we decided to disclose the full identities of the deceased in our analysis. We reasoned that the obituary writers were purposeful in seeking out public attention and acknowledgment of how their loved one died, some explicitly stating their hope to de-stigmatize opioid addiction.

Results

The Opioid Victim Prototypical Obituary

The prototypical opioid victim obituary declares the cause of death as opioid overdose in the lead sentence, pivots to sentimentalizing the deceased by describing their humor, charisma,

intelligence, and potential, escalating to a moment of hubris, when the deceased's auspicious life intersects with opioids, and finally, concludes by interpreting existential meaning or purpose from the deceased's death, alluding to a moral lesson conveyed through his or her life. In what follows, we draw attention to the discursive cues and linguistic devices the authors invoke to characterize the deceased's life as worthy of consideration. Obituary authors use the obituary's public platform to bring their loved one's tale full circle from hopeful progression, to a collision with opioids and decline, and finally, to an occasion for redemption and education, in an attempt to free the deceased from the societal stigma, shame, and disparagement of opioid addiction.

Cause of Death: Opioids

Opioid obituaries begin in a conventional and direct fashion: with a proclamation of death stating the deceased's full name, age, and date of death. However, in a clear divergence from the traditional obituary format, the lead sentence usually states the cause of death as "opioids" or "drug overdose." In a standard obituary, the writer may strategically identify the cause of death to contextualize a life or moralize the subject, such as stating the deceased died after a "long battle with cancer." Yet here, instead of repressing the cause of death, the author deliberately elevates it:

> Alexa Lynn Williams, born February 25, 1986, passed away unexpectedly on the morning of October 26, 2019, from an apparent overdose. (Alexa Lynn Williams, 2019)
>
> Christopher Sean Clifford, 31, of Baton Rouge, LA died Monday December 17, 2018 to an opioid overdose. (Christopher Sean Clifford, 2018)

The prototypical opioid obituary also qualifies the death as happening "tragically," "suddenly," "unexpectedly," and "needlessly," emphasizing the immediacy, futility, and abruptness of an opioid overdose death. In stark contrast to traditional obituaries, which often characterize deaths as "peaceful," opioid obituaries suggest that the deceased died without

warning. A cancer patient's death might be described as peaceful because the family had time to process and emotionally prepare for the loss. For the bereaved of persons addicted to opioids, the news of death comes with shock and dismay, especially after long stretches of sobriety.

Some opioid obituaries give a bleak portrayal of how the subject died, juxtaposing the conventional language used in obituaries to soften the news of death, such as "passed away peacefully at home" or "surrounded by loved ones," with a harsher reality. Ryan Hurst's obituary illustrates the antithesis of a socially desirable death, flipping the standard script by emphasizing that Hurst died abruptly, in a foreign environment, and alone:

> Ryan C. Hurst, 35, passed away on February 20, 2019, *unexpectedly and alone* with *no family by his side.* He was found *dead in a hotel room*; another victim of an opioid overdose. (Ryan C. Hurst, 2019)

The audacious positioning of the cause of death in the second sentence of the obituary frames Hurst's as a tragedy deserving of public consideration. It suggests that Hurst's demise is symbolic of a larger public concern, as he falls in line as "another victim of an opioid overdose." Similarly, the first line of Thomas Knight "Trey" Haner's obituary uses war terminology to characterize the deceased, calling the 25-year-old "another needless casualty of the opioid abuse and heroin addiction epidemic" (Thomas Knight Haner, 2017). Amber Dawn Itskin's obituary contends that "she was tragically taken by a Heroin Overdose" (Amber Dawn Itskin, 2017).

A third common element in the first paragraph of the opioid obituary is a statement about the subject's youthfulness. The obituary for Elliott Cleveland Eurchuk, who died from an overdose at 18 years old, compares the deceased to the seeds of a tree that haplessly drift through an open window, "never to mature into strong sturdy trees they were meant to be" (Elliott Cleveland Eurchuk, 2019). Another obituary describes Christopher Bramah as "just 25 years

young" (Christopher J. Bramah, 2019), in a deliberate twist on the convention of describing someone's age as a number of years "old."

These opioid obituaries deliberately reveal the cause of death, violating social taboos in favor of transparency. The sentences that follow mark a sharp transition away from horror, shock, and tragedy to a fundamental truth communicated in the obituary: the deceased were loved, appreciated, and adored. They were rare breeds, rebellious spirits, and enigmatic souls that were meant for a higher existence and purpose.

A Brief Biography of the Deceased: The Untethered Soul, the Provocateur, the People-Person

After the opening paragraph, the obituaries pivot to descriptive language characterizing the deceased as a unique person endowed with glowing attributes, copious talents, lofty ambitions, and numerous admirers. Readers are given a portrait of the deceased at the pinnacle of his or her life, detached from opioid addiction: An Americorp volunteer with a "deep desire to help others," (Warren, Nicholas Holman, 2019) a world traveler whose work was adapted for an independent film screened at the Sundance Film Festival (Alexandra Elisabeth Reisner, 2019), and a "Golden Boy" who sang in a high school a capella group (Chris Magnani, 2018).

The intellectual. In many cases, the writers portray the deceased as passionate for knowledge and driven by an insatiable curiosity. We learn, for instance, that Joseph Fowler could "devour a book in hours" (Joseph Robert Fowler, 2017) and Chris Magnani loved to learn about "everything from how the Titanic Ship sank to why Spider Man couldn't fly" (Chris Magnani, 2018). Nicholas Warren (Nicholas Holman Warren, 2019) was a "voracious reader" and "avid fan" of public radio who studied American culture and history at a private university. Anthony DeCrosta had a "brilliant mind" (Anthony E. DeCrosta, 2019) and Alex Reisner, who at

one point attended Columbia University, had an “incessant love” of literature and learning (Alexandra Elisabeth Reisner, 2019).

The physically attractive. Many descriptions emphasize the deceased’s physical attractiveness. Nick Hawkins’ parents, who are identified as the writers of the obituary, describe their son “handsome and charming” (Nicholas Hawkins, 2017) and Adam Bear’s writer calls attention to his “disarming good looks” (Adam Richard Bear, 2017). Their beauty is evident from infancy: Alexandra Reisner “lit up every room she entered from the day of her birth” (Alexandra Elisabeth Reisner, 2019) and Joseph Fowler’s parents “rejoiced in his beauty” when he was a baby (Joseph Robert Fowler, 2017).

The people-person. In addition to boasting of the deceased’s physical traits, writers harp on their gregarious personality and the ease with which they seemed to acquire admirers. Brad Shargani is depicted as an “outgoing and charismatic” bartender (Bradford Kenneth Shargani, 2019) and Anthony DeCrosta is remembered for his “ready laugh, which he used to help and befriend countless others throughout his life” (Anthony E. DeCrosta, 2019). Depicting the deceased as suffering from permanent brain damage after surviving a first opioid overdose, the writer contends that Kyle David Hamilton returned to his “loving, sassy self,” joking, mimicking others’ expressions, and laughing despite his physical limitations (Kyle David Hamilton, 2019). David LaPlante was a person who “was and always will be remembered by everyone he met,” his author writes, adding that he loved to laugh and make people laugh harder (David B. LaPlante, 2017).

The provocateur. However, the opioid overdose victim’s popularity with people was often confounded by a darker revolting or contrarian side. The writers use euphemisms to allude to the deceased’s tendency to aggravate controversy, rebel against the status quo, or push

boundaries of normative behavior. Alex Reisner, for instance, was known for "poking the bear" and cajoling "raucous debate wherever she went" (Alexandra Elisabeth Reisner, 2019). Although the writer praises Alex for boldly confronting, questioning, and probing others on a quest to expose injustice, some writers hold that the deceased's contentiousness was part of their makeup. The writers valorize the deceased for their boisterous traits, as Amber Itskin was a "beautiful mess" living to the "beat of her own drum" (Amber Dawn Itskin, 2017). Writers portray the deceased as recklessly barreling their way through life, doing everything to an extreme – Anthony DeCrosta (Anthony E. DeCrosta, 2019) lived his "life large and full throttle," David LaPlante "spoke his thoughts freely" and "loved fiercely" (2017), and Alexa Williams "did everything spectacularly," from academics, to sports, to motherhood (Alexa Lynn Williams, 2019).

The goal-setter. The authors also emphasized that the deceased showed tremendous potential to make their mark on the world. Many authors present the deceased as precarious and prodigious young people on the cusp of greatness. They were just beginning to gain their independence, pursue their giftings and passions, and venture into new environments when tragedy intercedes. Several of the deceased were driven to succeed: Nick Graham graduated from high school with one mission: to "Rule the World" (Nicholas Carmen Graham, 2018). Likewise, Adam Bear graduated with no other goal than to "be wealthy" (Adam Richard Bear, 2017). Utility worker Chris Bramah had humbler aspirations: to go to college, get a secure job, have a family of his own, and one day, retreat to the remote Alaskan wilderness (Christopher J. Bramah, 2019). Obituaries emphasize that the deceased was bound toward new experiences, often using the terms 'journey' or 'adventure' to describe the deceased's winding trajectory. This is illustrated in the hopeful, forward-gazing depiction of Chris Magnani before his fall to opioids:

> After Woodberry, Christian was SO excited to go to college. Not only to pursue his academic talents, but to continue to build friendships and memories that are unique to "the college experience." *New people. New places. New freedoms.* (Chris Magnani, 2018)

Clash with Opioids: An Auspicious Life Cut Short

In most of the obituaries in our corpus, conflict enters the narrative as the obituary pivots from recounting fond memories and doting on the deceased's finest attributes toward a darker description of their descent to opioid addiction. Whether the deceased innocently accepted opioid medication for pain (Alexa Lynn Williams, 2019; Elliott Cleveland Eurchuk, 2019), or recreationally "experimented" with drugs (Adam Richard Bear, 2017; Nicholas Carmen Graham, 2018), the ruinous turning point, incident, or behavior harkens to the narrative structure of Aristotle's tragic plot, in which an admirable hero suffers a downfall, momentary breach of character, or catastrophic misfortune (Aristotle, 2002). After military service, Nicholas Graham turned to heroin because he had trouble adjusting to civilian life. Elliott Eurchuk's (2019) downfall was the result of too much freedom: the autonomy to direct his own medical care after a series of surgeries. Taking opioid prescriptions during her teenage years – before the addictive nature of the drugs were fully known, according to the obituary – forever altered the course of Alexa Williams's promising life. In all cases, a momentary lapse in judgement or unfortunate circumstance sends the deceased spiraling off course, and they can never recover.

Aristotle (2002) contended that the tragic hero should be a societal figure who is regarded as better than the average person: virtuous, embracing moral qualities, and held in highest esteem. Classic tragic heroes – Hamlet, Oedipus, MacBeth, and Prometheus – were kings, noblemen, generals, and leaders prior to their fatal error. The tragic hero's *hamartia,* the Greek word for a fatal moment of error or lapse in judgment, is not the consequence of a person's

morality or folly, but rather his circumstances and fate, and therefore evokes pity rather than disgust.

Like the tragic hero of the literary genre, the subjects of opioid overdose obituaries encounter an unfortunate circumstance or *hamartia* that disrupts their trajectory and leads to self-destructive behavior. For Chris Magnani, it was a party where he was "introduced to an unfamiliar substance that forever changed the course of his life" (Chris Magnani, 2018). Unable to withstand the pressures of civilian life after military service, Nicholas Graham "made a bad decision to experiment in the world of heroin" (Nicholas Carmen Graham, 2018). Kyle Hamilton's obituary traces his opioid use to the guilt he felt after the death of his father (Kyle David Hamilton, 2019). As the obituary explains, Kyle had a special bond with his father, and when Kyle was 13 years old, he and his dad went on a run. Shortly after, Kyle's father suffered a heart attack and died. The obituary goes on to connect Kyle's grief and guilt from losing his father to his drug use:

> Several years later Kyle told us he blamed himself for his dad's death. Kyle silently carried this burden, this pain, deep in his heart. He put on a brave face but was deeply affected. He turned to drugs and alcohol to numb the pain; he said it made him feel good for the first time in years. At 17 Kyle began using opioids and this heavily impacted the rest of his life. (Kyle David Hamilton, 2019)

Other obituary authors omit the route by which the deceased became addicted to opioids. Instead, the authors draw upon the language of entrapment to cast blame on broader societal forces, suggesting the deceased was cornered, blindsided, suffocated by, or manipulated into opioid addiction. The author of Wayne Shepard's obituary proclaims that opioids "engulf their user and drag them down to a deep abyss of pain" (Wayne Paul Shepard, 2019). Nicholas Hawkins (Nicholas Hawkins, 2017) fought to "break free" of addiction, and although James Wilkins was a "strong man," his "battle skills" were not sufficient to overcome his addiction.

Kyle Hamilton did not want to die, but the “unrelenting pull” of addiction was too powerful (Kyle David Hamilton, 2019. In many cases, the obituary anthropomorphize opioids, thus deflecting agency, and therefore culpability, to the object of abuse and away from the substance user. The drug is the menace; the opioid itself afflicts the victims and their families with strife and suffering. For Amber Itskin’s writer, the drug was a thief who “stole her beautiful soul” (Amber Dawn Itskin, 2019) and Reghan Berry’s writer personifies heroin as a deceiver who exploited the victim’s emotional distress:

> Heroin told her "I can make you feel accepted, I can make you feel alright, I can make you feel worthy, I can make you feel normal, I make you feel loved and I can make you feel nothing and make you feel like everything will be okay." What it didn't tell her was how it would devastate her family and tear it apart, take her job and leave her penniless, take her home and make her homeless. How it would take her sparkle and smile, how it would take her humor and how it would take and take and take until it took her life. (Reghan Michelle Berry, 2017)

The obituary alludes to the deceased’s susceptibility to a drug that promised to erase emotional distress or discontent. Ryan Hurst’s obituary poetically argues that the deceased was unfairly duped into believing that heroin could alleviate his internal strife:

> Heroin didn't love Ryan, it controlled him; it owned him. It skewed his reality and numbed his heart. It mocked his every attempt to be free, reeling him in like a fish… hooked by the hollow point of a disposable needle. (Ryan C. Hurst, 2019)

Rather abruptly, obituaries transition from describing how the deceased succumbed to opioids to explaining how the deceased retaliated against their shared oppressor through a lifelong struggle, using metaphors of war and sin to describe an extended saga with addiction. In these paragraphs, the deceased is fighting a “war” (Reghan Michelle Berry, 2017), losing a “battle" (James Lispcomb Wilkins), embarking on a “quest” for sobriety (Teresa Grasso, 2017), unable to “conquer” his opponent (Nicholas Hawkins, 2017), or returning to his “mistress” (Kyle David Hamilton, 2019). In these paragraphs, obituaries use the terms “struggle” (Christopher Sean Clifford, 2018) and “journey” (Adam Richard Bear, 2017; Chris Magnani, 2018; Nicholas

Carmen Graham, 2018;) to describe the deceased's erratic and often short-lived attempts to seek recovery from opioid addiction. The deceased's failed effort to overcome is celebrated, valorized, and reframed as a triumph, deflecting blame to external forces, as shown in Alex Williams's obituary:

> She did not fail in her recovery, but fought valiantly and was ultimately failed by a poorly-coordinated system of care that could not sufficiently treat her. (Alexa Lynn Williams, 2019)

A number of obituaries note that the deceased died after a stretch of sobriety marked by hope and the promise of permanent healing. The writers emphasize the volatility of recovery and point to the unforgiving nature of opioid relapse, as one misstep meant death for a person who appeared, on the surface, to be advancing toward a normal, productive life. Chris Bramah, for instance, thought he had his addiction "beat" when, after 11 months of sobriety, an injury and subsequent prescription triggered relapse, rendering him dead in two weeks (Christopher J. Bramah, 2019). Teresa Grasso (Teresa Grasso, 2017) completed a year of intensive rehab and lived in sobriety for four years before returning to the drug that killed her. Exemplifying a productive life in sobriety, Kevin Donovan advocated for those recovering from opioid addiction, founding his own overdose prevention program and advocating for Narcan, the "angel" drug that reverses opioid overdose (Kevin Donovan, 2019). Still, he relapsed and died from an overdose.

<u>The Redemption Arc: 'He is Whole, Healed, and Free.'</u>

In the final paragraphs, the obituaries assign meaning to tragedy by reframing the death as a moment for education, awareness, prevention, and intervention. In this way, the obituary narrative follows a redemptive arc as the story comes full circle to a moment of vindication. The obituaries present a version of the deceased's life as an offering to society – a pedagogical

project and catalyst for change. In an unorthodox prose addressing the deceased, Sandy Oney's mother writes that if one person gets help from knowing his story, then she will have "served (his) memory well and brought the stigma associated with this disease to the forefront" (Sandy Oney, 2019). Adam Bear's obituary asserts that another life can be saved because his was lost:

> Even though his story came to a sad end much too soon, if a life can be saved because his was lost, his goal of helping others will carry on. (Adam Richard Bear, 2017)

In these final thoughts, the writer transitions from a passive, reflective tone to a more assertive call to action, employing public health language more commonly associated billboards and public service announcements, as evidenced in Alexandra Reisner's obituary:

> Opioids are the leading cause of preventable death among young people in the United States. We, as parents, as a society, must determine we have lost enough of our children and demand that the intersection of mental health and prescription drugs be refined and aligned. (Alexandra Elisabeth Reisner, 2019)

Joseph Fowler's obituary adopts biomedical terminology, referring to the mechanisms of the brain's receptors, to underscore that addiction is a "real physical disability" (Joseph Robert Fowler, 2017). Christopher Clifford's obituary advocates for mental health resources, beckoning readers to contact their local legislators to demand increased support for mental health research and treatment (Christopher Sean Clifford, 2018). Similarly, Jamie Neill's obituary adopts public health terminology to issue a statement about the pervasiveness of opioid addiction, seemingly suggesting that Jamie's fate could happen to anyone:

> Opioid addiction has reached epidemic levels in our country. It knows no boundaries; it is prevalent at all socioeconomic levels. It is not just something that happens on "that side of town" or somewhere else. (James Christopher Neill, 2019)

Some closing messages are directed toward survivors. Holding the health-care system accountable for Elliott Eurchuk's fatal reintroduction to opioids, the obituary advocates for policy change so that "no other family has to endure what we continue to endure" (Elliott

Cleveland Eurchuk, 2019). Kyle Hamilton's obituary directly addresses a community of sufferers - those in mourning, those in the throes of recovery, and families of addicted persons, offering empathy and encouragement in spite of their loss:

> To those who have lost loved ones to substance abuse, those personally struggling, or those heartbroken praying and waiting for your loved one to find recovery from this vicious disease--our hearts and prayers are with you--today and every single day. Speak out and reach out. We are rooting for you. You are not alone. (Kyle David Hamilton, 2019)

Other obituaries impart advice to those in a position to help a person addicted to opioids. Arguing that isolation endangers people addicted to opioids, David LaPlante's obituary warns against pushing a person struggling with addiction to the "fringes" (David B. LaPlante, 2017). Adam Bear's obituary urges people to "act fast" to help a person living with addiction (Adam Richard Bear, 2017). Joseph Fowler's obituary relates to the loved ones of someone struggling with addiction, acknowledging that they are overwhelmed with differing opinions and approaches to helping a person in addiction, on a "roller coaster of unknowns and self-doubt" (Joseph Robert Fowler, 2019).

The closing paragraph also serves to vindicate the victims of the stigma of opioid addiction that looms over their death, now made explicit to the public. Kristopher Kahle's obituary acknowledges the family's intent to "break the pervasive silence and shame of opioid abuse" by listing the deceased's cause of death (Kristopher Paul Kahle, 2019). Kyle Hamilton's obituary declares that "it is time to speak up" and "end the stigma that follows addiction" (Kyle David Hamilton, 2019). Many obituaries strive to represent their loved one's life as more than a statistic of opioid overdose. Wayne Shepard's family shared his story in hopes that his death will not be dismissed as another drug overdose statistic (Wayne Paul Shepard Jr., 2019). This same concern with reducing a person to a statistic resurfaces in Reghan Berry's obituary:

> To the person who doesn't understand addiction, she is just another statistic that chose to make a bad decision; a very uneducated statement indeed, but nonetheless that is what they will say, along with some other hurtful statements. We don't care though, because for people who do understand, this is our baby, our oldest, our child, our daughter and my everything. She was a sister, a niece, a granddaughter, a friend, a cousin, a human being with an addiction. (Reghan Berry, 2017)

In a standard obituary, the concluding paragraph lists funeral or memorial service details and provides an address where the family may receive flowers or other expressions of sympathy. Often, the formal closing instructs readers to "in lieu of flowers" donate funds to a philanthropic cause championed by the deceased. Obituaries implored readers to "in lieu of flowers" donate to drug rehabilitation programs, substance abuse research, and anti-drug advocacy groups. Obituaries for Joseph Fowler (Joseph Robert Fowler, 2017) and Kyle Hamilton (Kyle David Hamilton, 2019) ask readers to give memorial contributions to the same recovery centers where the deceased received substance abuse treatment. Others direct donations to advocacy groups or awareness funds such as Heroin Kills, the Southeastern Council on Alcohol and Drug Dependency (Kristopher Paul Kahle, 2019), SAFE Project (Nicholas Holmes Warren, 2019), Faces and Voices of Recovery (James Lipscomb Wilkins, 2017).

Negative Cases

We identified several outlier cases that deviated from the prototypical narrative structure we have described thus far. In contrast to the depersonalized third-person voice, a few obituaries written in second-person voice address the deceased as the recipient of a poetic lamentation. In an obituary published three years after her son's 2016 death, Sandy Oney's writer, self-identified as "Mom," recalls how numerous people at "your funeral" spoke of how "you" helped them in recovery" (Sandy Oney, 2019). Without any regard for an external audience of media consumers, she closes the obituary with a pledge to love her deceased son until "the end of time." Before

pivoting to first-person voice to tell her story, Elliott Eurchuk's writer (also his mother) opens with a poem in which she narrates what happened after Elliott's life ended:

> A community rallies to put things right
> But young death will never be made so
> Only sweet memories can anesthetize the pain.
> (Elliott Cleveland Eurchuk, 2019)

Other obituaries slip haphazardly into a less formal first-person voice, using a collective "we" or "I" to represent the bereaved family. The author of Reghan Berry's obituary transitions from describing her life in the third-person to addressing her daughter in second-person saying, "I love you my Reghan girl. Shine down on all of us and keep working those miracles from Heaven" (Reghan Berry, 2017).

In contrast to the many obituaries that describe the deceased in a favorable light, two obituaries deliver a more candid portrayal of the deceased. Instead of glorifying the deceased, these obituaries give a rendition of a "real," and undeniably flawed, individual deserving of some moral culpability in his own demise. Ryan Hurst's obituary contends that the family did not abandon Ryan on his quest to recover from addiction but "had to afford him the opportunity to suffer the pain and consequences of his own destructive choices" (Ryan C. Hurst, 2019). The obituary does not equivocate in naming his moral lapse or employ euphemisms to mask the part he played in his own death. It simply states that "no one is perfect" and "life is messy." While Adam Bear's obituary extols his charm and eagerness to help others, it also concedes that he "made a bad decision to experiment in the world of prescription opioids" (Adam Richard Bear, 2017). Finally, suggesting that the deceased oscillated from one moral extreme to the other, Wayne Shepard's obituary reads: "When he was good, he was good. When he was bad, he was bad" (Wayne Paul Shepard Jr., 2019).

Conclusion

As a cultural artifact, the opioid obituary magnifies the voices of the opioid epidemic's bereaved, providing alternative stories of stigmatized lives often reduced in mainstream media to criminalization and statistics (Webster et al., 2020). In this article, we proposed a prototypical structure that distinguishes the modern obituary as means for the private sufferers of the epidemic to construct meaning, express empathy, and perform public outreach. The obituary opens with a jarring, self-effacing revelation of a young person's cause of death, transitions to a flattering description of an individual poised to succeed in life, pivots to a moment of hubris wherein the auspicious life intersects with opioids, and concludes with public health message or gesture of empathy for other families, positioning the deceased as an exemplar – in some cases, a martyr – whose story might save others from a similar fate. In adopting this rhetorical strategy, the obituary casts the deceased as a tragic hero whose story of misfortune carries pedagogical force in society. A postmodernist emphasis on "living for the other" has transformed the illness narrative from a patient's total surrender of the body to medicine to a reflexive and deeply personal act – or duty – intended to guide others into the future (Frank, 2013). Telling the deceased's opioid addiction story is a reflexive and dutiful act intended to guide others away from hardship in the future (Frank, 2013). The bereaved become witnesses who bear a moral responsibility of teaching others how to respond to, think about, and empathize with others suffering from opioid addiction.

For both media and cultural scholars, obituaries represent a new territory for understanding the cultural significance of an opioid death through the narratives of the bereaved. Obituaries encompass the simultaneous acts of redeeming a blemished life, conjuring meaning out of loss, and issuing a pedagogical message intended to salvage other people and families

from unnecessary suffering. Plainly, individuals who overdosed on an opioid succumbed to their addictions – they never "rose out of the ashes" to reclaim their health (Frank, 2013, p. 135) and their stories end in despair. Their renewal and redemption only occurs in the aftermath of the chaos and is entirely contingent on the witness of a surrogate storyteller – the person or contributors behind the obituary. The obituary is a vessel for carrying an illness narrative about opioid addiction to fruition and completion. As a distinction from emergent and incoherent illness narratives told in clinical settings or by illness survivors (Kirmayer, 2000; Mattingly, 2000), the narratives embedded in obituaries are conclusive: the illness prevails and the family grapples with an undesirable ending. Yet, consistent with emergent illness narratives, the opioid obituary conforms to a postmodernist value of "living for the other" – or in this sense, *dying for the other*.

Our analysis also demonstrates how the opioid obituary helps to create cultural meaning on multiple dimensions. As its most fundamental accomplishment, the opioid overdose obituary serves a pragmatic function of notifying a community of a loss. On another dimension, the opioid obituary provides an arena for the final recitation of a person's life, and thus morphs into a personal narrative told from the perspective of the deceased's family or loved ones. Obituaries substantiate the techno-scientific reclassification of opioid addiction as a biomedical condition with a distinct pathology, diagnosis, and treatment regimen (Clarke et al., 2003). Representing the experiences and voices of the private sphere, obituaries join an increasing number of spheres of cultural production that are entangled with and shaped by biomedical innovation (Hallin, Brandt, & Briggs, 2013).

Opioid addiction acquires personal and social significance not only for the deceased, but importantly, for people left in the aftermath of their tragedy. Kleinman (1988) explains that

making sense of an illness is a profoundly social undertaking; the patient's significant others construct a shared meaning of one person's illness through ongoing interactions and negotiations. For a family grieving a young person's opioid death, publishing an obituary may give order and coherence to a senseless loss, fulfilling a therapeutic function and recasting a desultory experience into a moral lesson.

As another dimension of meaning, the opioid obituary reflects contemporary social mores and values in bifurcating worthy and unworthy lives (Hume, 2000). What would otherwise be discarded as a senseless tragedy is reimagined as a heroic feat, even humanitarian sacrifice. Obituaries perform a rhetorical task in arguing that the deceased deserves public recognition for heroism, modeling their subjects after tragic heroes in literature (Aristotle, 2002). Obituaries assert that the deceased lived a life deserving of public recognition, *not in spite of opioid death but because of opioid death.* By characterizing the pre-opioid person as a worthy of admiration – smart, endearing, popular, and ambitious – and anthropomorphizing the opioid as a culprit, an antagonist, a deceiver – the authors suggest that even the most upstanding and virtuous of people are susceptible to addiction. These outcries of grief are not simply hopeless lamentations but acts of advocacy and goodwill that reflect a heightened concern for using death as an instrument for social change.

The opioid epidemic's bereaved are the quintessential tragic optimists (Frankl, 1998). They harness the obituary as a venue for sharing personal narratives of addiction and constructing meaning out of a "senseless" loss. In an effort to vindicate the deceased, bereaved voices bring depth and nuance to the lived experience of addiction, revealing ways in which their version of reality contends with culturally accepted truths about the people impacted by the

epidemic. Opioids are perpetrators, the deceased are tragic heroes, and their families are advocates who believe storytelling is an effective weapon against a formidable foe.

Obituary discourses diverge from news media discourses of opioid addiction in characterizing a person who, in spite of their weaknesses, is worth remembering in society. While the trajectory of the character is indisputably a downward spiral, the moral and public health message their story communicates to the public absolves them of their lapse in judgment or misbehavior. In contrast to the campaign discourses, which are framed in terms of a person's loss and vulnerability to forces outside of their control, the discourse of the obituary is framed in terms of what the reader gains. Each story concludes with a wish or hope that their public display of grief will impart wisdom or guidance to another suffering individual or family. The subject of the obituary is neither victimized nor helpless, but flawed nor faultless, but humanized as a tragic figure whose story serves as a warning to others.

CHAPTER 6: CONCLUSION

Throughout this dissertation project, I have examined discourses across various media venues where stories of opioid addiction suggest cultural truths about the people, causes, and consequences of the opioid crisis. I have argued that disparate versions of the opioid narrative arise in different discourses, which advance different authorities, explanatory frames, assumptions, and solutions to the opioid epidemic. A cacophony of discourses emerging from different levels and sectors of the American media landscape has hindered policy action to put a final end to the public menace. In fact, the story of America's opioid epidemic is contested and muddled. Even though U.S. politicians have championed the issue as a rare case of bipartisan convergence in a highly polarized political climate, policies have yet to prove successful in reducing annual drug overdose rates (Blendon et al., 2016).

In this final chapter, I reconstruct a narrative prototype for three media discourses that communicate distinctive realities of opioid addiction and project different models of biocommunicability. Returning to the research questions guiding this dissertation, I will describe narrative elements and assumptions underlying each of these discourses contradict, challenge, or complicate the process of making sense of the opioid epidemic as a biomedicalized health condition, a cultural phenomenon, and a public issue requiring policy action. I will assess how these narratives reflect and diverge from the biocommunicable models outlined by Briggs and Hallin (2016). Finally, I will provide implications for public health communicators, journalists,

politicians, and medical professionals, and point to future directions in opioid communication research.

News Media Discourses: Opioid Heroes and Villains

If the news media treated the opioid epidemic as a biomedical issue, then media scholars would likely see evidence of all three biocommunicability models in daily news coverage (Briggs & Hallin, 2016). However, opioid reporters did not act as mediators of knowledge passed down from biomedical experts, nor did their stories inhabit a patient-consumer model that would address readers as health consumers empowered to prevent or direct their treatment for opioid use disorder. Rather, the news media equivocate in choosing a frame for the opioid epidemic, in some instances giving biomedical experts authority to advocate a brain disease perspective and in others repressing biomedical authority in favor of a legal or government perspective.

Our research suggests that news organizations designate politicians and government officials as the instrumental change-makers in the opioid epidemic narrative. The emphasis on government sources and positive portrayal of government officials in elite-level news coverage inhabits the elite public sphere model (Briggs & Hallin, 2016). In this model, media viewers are powerless observers of political discourses in which elites are embattled in debate. For instance, in much of the 2019 coverage, stories focused on how the federal government "doled out" funds to combat the crisis to state and local governments (Kaiser Health News, 2019). Other stories depicted how state attorneys prosecuted pharmaceutical companies, with Purdue Pharma and the Sackler family at the center of allegations that the industry's deceptive marketing practices created and sustained the nationwide epidemic.

For every heroic figure in a narrative, there is a force of opposition or resistance to impede a heroic feat. Elite-level news media went to great lengths to vilify the pharmaceutical industry executives and profiteers who have benefited from drugs that initiated the prescription drug crisis, with particular interest in the downfall of the Purdue Pharma empire. Elite news, for instance, reported extensively on private art museums' decisions to no longer accept philanthropic funds from the Purdue Pharma's Sackler family (Harris, 2019). Elite news also entertained the perspective of pharmaceutical companies, most notably publishing an op-ed written by Arthur Sackler's widow, Jillian Sackler, who sought to exonerate her husband from the production and distribution of Oxycodone (Sackler, 2019).

Yet, the voices omitted from the news media narrative are even more significant as those vilified. While politics, crime, and legal proceedings were covered in abundance, narratives about individuals experiencing disordered opioid use were an afterthought in regional news coverage, appearing in 11% of Appalachian stories. When Appalachian news stories included an individual's OUD narrative, the person's trajectory landed on one of two extremes, either ending in abysmal failure or triumphant rebound. Appalachian stories failed to capture a version of reality touted by the scientific community: that opioid addiction is a chronic, relapsing disorder characterized by changes in the brain that scientists are just beginning to understand, and that most individuals will require some form of disease management, such as maintenance medications buprenorphine or Suboxone, to live a normal life going forward (NIDA, 2020).

Elite-level news coverage included an individual OUD narrative in one-fifth of stories analyzed, and a quarter of those stories included multiple narratives. Elite-level news portrayed recovery as a continuous effort in 9 of the 46 narratives analyzed in our sample. While elite news

portrayed more individuals in the throes of recovery than Appalachian news, half of individuals failed in spite of attempts to recover or showed no attempt to recover.

As members of an interpretive profession, journalists are charged with constructing news stories from cultural materials available in their social environments and through active negotiations with information subsidiaries (Zelizer, 1993). Their work is simultaneously a product and source of cultural knowledge (Tuchman, 1978). The stories journalism tells about the opioid epidemic are dominated by the voices of elite actors with a political agenda rather than the voices of individuals and community-level actors who are personally impacted by the opioid epidemic. The news narrative of opioid addiction is detached from the purview of public health, as evidenced by the persistent use of stigmatizing terms and scarce use of biomedical terms to characterize addiction. The news media deny any role in executing a public health agenda (Amend & Secko, 2012) and, as we conclude, have posed resistance to the opioid epidemic becoming enfolded in the ever-growing domain of biomedical authority.

Campaign Discourse: Opioid Victims, Escapists, Self-Sabotagers

In contrast to the news media narrative, the Rx Awareness campaign provides a more sympathetic addiction story, which casts people with OUD as victims, escapists, and self-sabotagers. Two-thirds of the campaign subjects were people successfully living in recovery. At the start of their opioid addictions, the subjects were naive to the drug's potential, referring to their tendencies to overtrust their medical provider's decision to prescribe. All the stories were framed in terms of what the subject lost: homes, children, relationships, careers, and businesses (Iyengar, 1991). The dominant attribution frames were a pre-existing health condition or a medical provider's prescription, with one-fifth mentioning a mental health disorder or trauma.

In terms of framing, the most frequently employed frames in the news media sample were entirely absent from the campaign narratives – not one mentioned structural or societal forces that contributed to a person's addiction (McGinty et al., 2019). While the CDC identified the target audience as U.S. adults ranging from 25 to 64 years of age (CDC, 2017), most of the stories specified the onset of addiction as occurring between the ages of 12 and 24. Given that the message was prevention-focused, the subjects did not resemble the target audience. In addition, the campaign messages lacked consistency and coherence in terms of communicating a cause and effect of misusing opioids. As another critique, the campaign messages amplified the medical profession's role in the crisis, reifying a narrative of iatrogenic addiction, and failed to acknowledge current drug use trends toward non-medical synthetic opiates.

The onset of opioid addiction is a complex event resulting from a confluence of psychological, social, environmental, and structural factors, including the medical system. Epidemiological data offers insight as to how opioid addiction occurs and attunes populations to circumstances that increase the risk of addiction. Still, it is important to acknowledge the limits of epidemiological data, as studies often produce conflicting and even contradictory evidence about the rate of people prescribed opioids who develop a dependency. It will be important for public health agencies to design messages that provide a non-threatening portrayal of health-care providers, who are most aptly poised to assist with opioid management and increase a person with OUD's likelihood of sustained recovery through a number of evidence-based interventions.

As our content analysis results show, both regional and elite American journalists have resisted adopting the brain disease paradigm in their coverage of opioid addiction, and the opioid epidemic is often delegated to crime, government, and, increasingly, legal beat reporters. Interviews with journalists who cover the opioid epidemic may provide insight as to how

newsmakers decide whether an opioid story is delegated to a crime, political, legal, or health beat reporter and under what justifications. Political and legal reporters are less likely to know about health industry recommendations to use person-first language, source health-care experts, or incorporate medializing terminology that frames opioid addiction as a recognized medical disorder.

Our research underscores the need to influence journalism practice by instructing reporters to cover the opioid epidemic in a way that diminishes stigma, reinforces biomedical expertise, and directs individuals toward opportunities for treatment, which is consistent with the patient-consumer biocommunicability model. Educating the news media about the brain disease paradigm, exposing journalists to neuroscientific evidence that depicts changes in the brain occurring from prolonged opioid use, and advocating for the use of sensitized terminologies can make an impact on the news narrative. Health journalists should stake their claim to the opioid epidemic and work with colleagues across the newsroom to ensure that proper terminologies appear when the issue must be covered as a criminal or legal matter.

Public health officials can also play a role in changing the narrative of opioid addiction in the news. Public health officials should develop educational tools and online resources that will instruct journalists on how to preserve humanity dignity while covering individuals with OUD. These programs might draw from reportingonsuicide.org, a collaborative public health project that educates journalists and other media content producers (e.g., bloggers, social influencers, etc.) on how to prevent suicide contagion, which has been linked to media coverage of celebrity suicide deaths (Fink et al., 2018). Further, public health officials at the community, state, and local levels should facilitate mutually beneficial relationships between journalists who cover their communities and health-care providers who are able to articulate opioid addiction as a

medical disorder that can be managed and controlled through ongoing contact with the medical system. Health-care providers with experience treating addiction successfully should be willing to interface with journalists through coordinated public relations efforts, understanding they have inherited a crisis of addiction as well as a crisis of public understanding.

Our research also indicates that doctors who consume high levels of media and whose patients mention opioid-related media stories in clinical consultation are more likely to believe their patients are misguided about the dangers of opioids. Prescribers must also acknowledge that their job entails effective communication with patients about complex and often widely misunderstood topics. Medical training and continuing education should instruct doctors to use the clinical consultation as an opportunity to correct misperceptions, reject myths, and assuage anxiety of about opioid addiction that is rife in American culture and media.

Further, health-care institutions, health advocacy organizations, and public health campaign strategists must recast the doctor's role in the narrative of addiction in their own messaging. Our research shows that news media use a medical system attribution frame more frequently than a pharmaceutical system attribution frame, and that the Rx Awareness campaign used a medical frame for addiction in more than half of its narratives. Messages about opioid addiction should be more consistent with Street's (2003) ecological model of medical collaboration, positioning doctors as trusted experts and beneficent partners in health-care decision making. Messages should target people struggling with addiction and encourage this population to engage with the medical system, where their addiction will be addressed as a chronic disease. When framing opioid addiction episodically, or as an isolated experience affecting one individual, message designers should consider the person's trajectory – whether he or she is depicted as a failure or triumph in the effort to heal. A more realistic picture of

addiction is a person who must seek medical attention and follow up in a process that involves setbacks and forward progress.

In relating the campaign stories to biocommunicability frameworks, the Rx campaign narratives spoke directly to health-care consumers, thus reflecting the patient-consumer model with a few idiosyncrasies. As with many health campaigns, the target audience was the lay public, not stakeholders or experts on the issue. At one extreme, the Rx campaign narratives encouraged viewers to make "choices apart from the direct supervision of their physicians" (Briggs & Hallin, 2016, p. 34) by rejecting an opioid prescription, thus resembling the ultimate patient-consumer framework. In fact, the campaign's target behavioral outcome was "increasing the number of people who avoid using opioids non-medically (recreationally) or who choose options other than opioids for safe and effective pain management" (CDC, 2017, p. 5). Yet, at another extreme, the campaign narratives are devoid of pedagogical information that would instruct or empower consumers to fend for themselves. In this respect, the Rx Campaign does not align with the patient-consumer model.

Just as the CDC's Opioid Prescribing Guidelines for Chronic Pain created more confusion than clarity for prescribing physicians, the Rx Awareness narratives are likely to create more confusion than clarity for health-care consumers. The ostensible question after viewing "Brenda's Story" is, "what should I do if my doctor prescribes opioids to me?" The campaign fails to take advantage of one of the crowning achievements of narrative persuasion: highlighting the contextual, structural, and environmental factors that contribute to a person's addiction disorder. Individual stories should be accompanied with information about structural, environmental, or political barriers to recovery as to avoid emphasizing individual-level solutions over policy-based solutions (Gollust et al., 2019).

Obituary Discourse: Memorials Transformed into Public Health Warnings

An examination of cultural narratives of opioid addiction would be incomplete without attending to stories told by people personally affected by the opioid epidemic. Opioid obituaries followed a predictable storytelling pattern, progressing from an overt statement of opioid death, to a flattering reflection on a loved one's life, to a moment of moral lapse or hamartia, to a public health message about opioid addiction. While people who use opioids are prosecuted as criminals in the news media and victimized by their health provider in campaigns, the bereaved attempt to tell the story of an average person who, despite his upstanding character and morale, collides with misfortune (Aristotle, 2002). Through a glowing review of the person's life, the opioid obituary contests a narrative depicting people who died from opioid overdose as social deviants. Yet the obituary also recognizes that the deceased deserves some accountability for their demise, alluding to a detour, momentary weakness, or misdirection along an otherwise hopeful trajectory. The obituaries also make sense of an overdose death by focusing on the internal unrest or discontent experienced by the deceased, implicating a person's mental illness for a spiral of destructive decision making.

Astoundingly, the obituary narratives resemble an individual trajectory most closely aligned with epidemiological data, which suggest that addiction is a disease marked by multiple instances of relapse and a lifelong need for supportive therapies. The obituaries blended the three biocommunicable frameworks, as they invoked biomedical authority to reify addiction as a disease, directed messages toward health-care consumers, and addressed the public as citizens-spectators to make value-based judgments on a public health problem. As vehicles for a public health message, the obituaries advanced action-oriented messages about structural or policy solutions. When a public health action was put forth, it was concrete, practical, and usually

related to de-stigmatizing addiction or advocating for treatment. Instead of warning the public to "know opioids are dangerous," the obituaries directed an empathetic and hopeful message to families with similar experiences.

When an Epidemic and Pandemic Intersect: Emergent Challenges in Opioid Messaging

The interruption of the coronavirus is an unprecedented plot-twist in America's opioid epidemic narrative. Public health experts fear the coronavirus pandemic will ultimately imperil efforts to resolve the opioid crisis (Volkow, 2020). In addition to their higher vulnerability to having complications with COVID-19, individuals with substance use disorder confront numerous challenges to engaging with the medical system and continuing long-term therapies for addiction (Volkow, 2020). Preliminary data from 30 of the most populous counties in the nation show that drug overdose deaths in 21 counties were trending upward in the first few months of the pandemic (Kamp & Campo-Flores, 2020). If public health data follows this trend throughout 2020, the national number of drug overdose deaths will surpass the record 72,000 deaths set in the previous year. Early evidence also indicates that more Americans are turning to substance use in response to the pandemic: 13.3% of respondents in a national survey reported starting or increasing substance use to cope with pandemic-related anxiety (Czeisler et al., 2020).

Future opioid communication efforts must address new structural, environmental, and policy barriers to delivering treatment to individuals with OUD during the pandemic. These challenges include safety hazards of meeting with patients in person and risks of imposing self-isolation on people living in recovery, who are especially vulnerable to relapse when isolated from social support. As these two health events become increasingly intertwined, research should examine how the opioid epidemic narrative evolves alongside the coronavirus response. A national focus on rising rates of mental health disorders during the quarantine period might

influence how journalists frame the causes of opioid addiction. As journalists and the public become more reliant on the biomedical industries expediting the development of an eagerly anticipated coronavirus vaccine, journalists might relinquish more authority to biomedical experts in the crowded and contested domain of opioid addiction.

Conclusion

Distinctive opioid epidemic narratives and ideologies for communicating to the public about opioids emanated from the three media discourses and providers' perceptions of clinical discourse examined in this dissertation. National news media constructed an opioid narrative of criminalization and politicization, portraying government officials as heroic change-makers in the crisis and repressing the voices of individuals living with and recovering from OUD. The news media resisted the brain disease paradigm and framed opioid addiction as arising from unscrupulous medical prescribing, a frame that threatens to undermine the importance of continuous engagement and trust in medical providers.

The CDC's Rx Awareness campaign depicted people with OUD as victims, escapists, and self-sabotagers, although overlapping and sometimes contradictory storylines were evident in a single campaign narrative. Private citizens' lives and struggles with opioid addiction were made explicit through obituaries, which were repurposed as vehicles for transporting messages about stigma, treatment, and policy into the public sphere. In examining clinical discourses, we found some evidence suggesting that news media and health campaign messages about opioid risks infringe on clinical interactions. Journalists, health campaign designers, and policymakers must acknowledge the circulation of disparate narratives, as each narrative renders insight into the intricate, culturally contingent, and ever-evolving set of assumptions and beliefs about the causes, consequences, and people affected by the opioid epidemic.

The news media represent a battleground where numerous sources compete for authority to produce cultural knowledge about opioid addiction (Tuchman, 1978). Journalists aspire to tell stories about the opioid epidemic that are riveting and memorable, whereas public health experts want to change societal perceptions about addiction. Often the more riveting opioid narrative involves a criminal act, a controversy, or legal battle, and thus a topic biomedical experts have labeled as a matter of public health – an "epidemic" (Carr, 2019) – gets covered through the lens of crime, court, politics, and governance. Health journalists should make a case to news editors for covering the opioid "epidemic" as exactly that – a disease upon a population. By invoking a patient-consumer model, directing messages toward health-care consumers rather than political elites, journalists can equip laypersons with useful information and help to normalize medical care for substance use disorder.

Importantly, the brain disease paradigm contains a subtext that provides a clue as to why the definition receives scant attention in the news media narrative. NIDA (2020) states that "the initial decision to take a drug is completely voluntary." The brain disease paradigm is not useful for describing how a person succumbs to an opioid addiction – a person's exposure to opioids is almost invariably the consequence of human choice, which is subject to moral judgment. Even the Rx campaign narratives resist placing the onus of addiction on the individual who shares his or her story, deflecting blame to the medical institution. The myth of iatrogenic opioid abuse allows campaigns to promote stories of resolute individuals in recovery who rose above their addiction through cultural reconnection and strength of will – embodying the neoliberal subject who rescues himself from adverse outcomes (Lupton, 1995). Campaign narratives should celebrate an individual's recovery but depict how many individuals work toward recovery with a health-care provider who can medically manage an addiction disorder. Modeling positive

engagement with the health system, nonjudgmental health-care settings, and stable patient-provider relationships might encourage more individuals to seek medical care or therapy.

Obituaries were the only discourse that integrated a narrative of human fallibility and the brain disease paradigm. By invoking hubris, an age-old literary device, obituaries described a decent person who falters. The obituary does not downplay the issue of a person's culpability in addiction, but confronts it head-on, contextualizing opioid addiction as a symptom of a variety of social, psychological, and environmental forces working against the deceased. The obituary also chronicles the reality of addiction recovery – a chaotic, unpredictable process that entails both setbacks and forward progress and could abruptly end in death. The obituary captures a reality that addiction springs from an inexplicable issue at the marrow of our social world – a pervasive discontent that drives average people to engage in irrational behavior.

FIGURE 1: Data sources representing media and clinical discourses

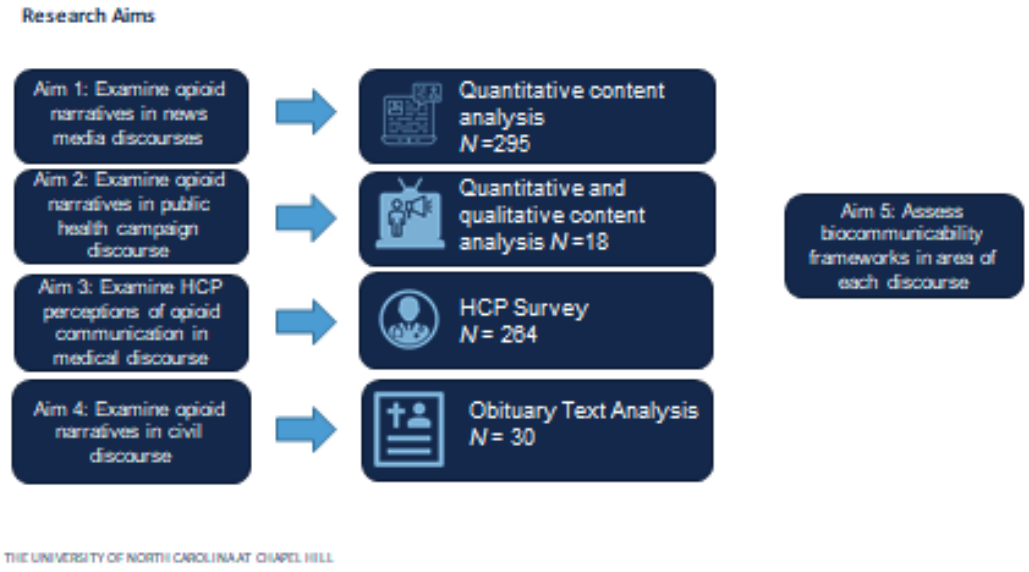


FIGURE 2: Opioid Obituary Prototype

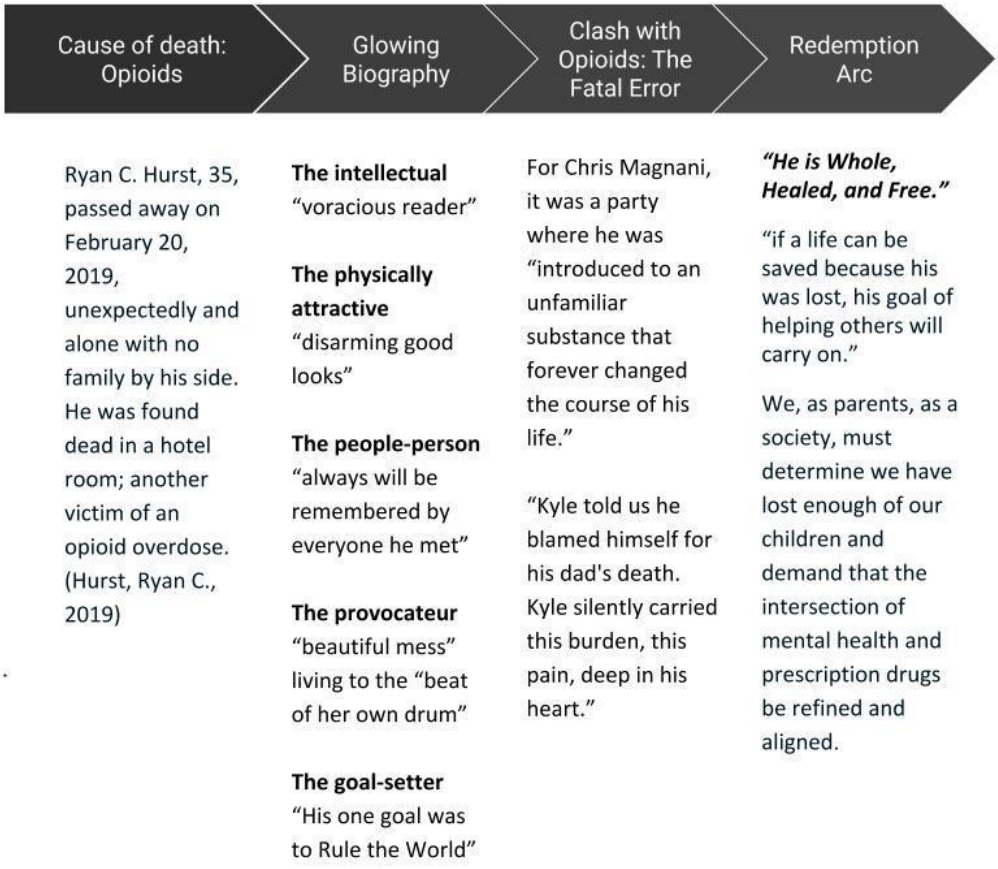


TABLE 1: Frequencies, chi-square, and z-score results for presence of sources by level of coverage (national elite or regional Appalachian)

Source	Appalachian *n* =149		Elite *n* = 146			
	n	%	*n*	%	$\chi^2(1)$	*Z*
Doctors	20	13.4	29	19.9	2.08	
Other health care providers	9	6	12	8.2	.53	
Health-care organization	11	7.4	14	9.6	.46	
Government or elected officials	76	51	81	55.5	.59	
Legal or law enforcement	77	51.7	59	40.4	3.76	
Government health agencies	38	25.5	53	36.3	4.03*	-2.01**
Pharmaceutical industry	18	12.1	42	28.8	12.67***	-3.62***
Persons with problematic opioid use	15	10.1	27	18.5	4.28*	-2.07***
Family members (of people who use)	7	4.7	14	9.6	2.66	
Researchers, field experts, academicians	25	16.8	54	37	15.35**	-4.01***
Media sources/journalists	30	20.1	27	18.5	.15	
Private sector/nonprofit/NGOs	30	20.1	41	28.1	2.54	
Community members	10	6.7	11	7.5	.076	
Other/None	5	.06	5	.06	.983	

*$p<.05$; **$p<.01$; ***$p<.001$; *z-score indicates source is significantly associated with level.*

TABLE 2: Mean scores and t-test comparisons for portrayals of prominent figures in Appalachian and legacy news

Source	Appalachian			Elite			
	n	*M*	SD	*n*	*M*	SD	*t*
Government officials	76	2.71	.56	81	2.49	.76	-2.04*
Doctors	20	2.30	.57	29	2.24	.57	-.35
Health-care organizations	11	2.36	.67	14	2.35	.49	-.028
Health-care providers	9	2.33	.50	12	2.66	.49	1.52
Government agencies	38	2.16	.37	53	1.96	.55	-1.89
Pharmaceutical industry	18	1.44	.85	42	1.02	.15	-3.01*
Individuals with OUD	15	1.87	.74	27	2.07	.47	.276

**p<.05; Rated on a scale from 1-3 (3= heroic, 2= neutral/victimized, 1=villainous).*

TABLE 3: Frequencies and percentages for article type, human interest frame, conflict frame, and article origin in Appalachian and elite news coverage of the opioid epidemic

	Appalachian *N* = 149	Elite *N* = 146
Article type		
Hard news	110 (73.8)	100 (68.5)
Soft news	14 (9.4)	15 (10.3)
Opinion	23 (15.4)	24 (16.4)
Other	2 (1.3)	7 (4.8)
Human interest		
No	122 (81.9)	106 (72.6)
Yes	27 (18.1)	40 (27.4)
Conflict present		
No	92 (61.7)	49 (33.6)
Yes	56 (37.6)	97 (66.4)
Article origin		
Government or health agency action	27 (18.1)	38 (26)
Legal or criminal action	48 (32.2)	38 (26)
Research publication or data trends	17 (11.4)	9 (6.2)
In-depth story	15 (10.1)	28 (19.2)
Voicing perspective	22 (14.8)	21 (14.4)
Action by private sector/NGO	5 (3.4)	5 (3.4)
Other	15 (10)	7 (4.8)

TABLE 4: Frequencies, percentages, and chi-square results for attribution, barrier, remediation, and controversy frames in Appalachian regional and elite samples

	Appalachian *n* =149		Elite *n*=146			
	n	%	n	%	$\chi^2(1)$	*Z*
Attribution						
Illegal activity/drug trade	64	43	85	58.2	6.87***	2.64***
Medical care or decision-making	42	28.2	58	39.7	4.38***	-2.10**
Pharmaceutical industry	36	24.2	54	37	5.72*	-2.41**
Individual willpower	16	10.7	18	12.3	.183	-
Injury or pre-existing condition	10	6.7	21	14.4	4.62*	-2.16**
Mental health/trauma	9	6	10	6.8	.080	-
Social influence	6	4	3	2.1	1.0	-
Government/policy	-	-	20	13.7	21.89***	4.81***
Economic conditions	3	2	7	4.8	1.74	-
Brain disorder	2	1.3	1	.7	.317	-
Remediation						
Medical system and its providers	41	27.5	45	30.8	.39	
Politicians or government	37	24.8	54	36.9	5.11*	-2.43**
Pharmaceutical industry	12	8.1	16	11	.72	
Private sector	5	3.4	3	2.1	.47	
Law enforcement or legal	22	14.8	28	19.2	1.02	
Educators or advocates	10	6.7	6	4.1	.32	
People who use opioids	3	2	2	1.4	.183	
Research and development	6	4	9	6.2	.698	
Family members and friends of people who use opioids	1	.7	-	-	.98	
Controversy[a]						
Medical science or research	3	5.2	5	5.2		
Health-care decision making	8	14	14	14.4		
Access to resources	1	1.8	6	6.2		
Marketing/sales tactics	4	7	7	9.3		
Legal action or court cases	22	38.6	22	22.7		
Health policy/government	13	22.8	32	33		
Private sector/NGO	2	3.5	7	7.21		
Law enforcement	1	1.8	2	2.1		
Human morality	3	5.2	2	2.1		
Barrier						
Stigma	11	7.4	11	7.5	.002	
Lack of awareness	9	6	14	9.6	1.29	
Person's willpower	8	5.4	8	5.5	.002	
Lack of access	26	17.4	26	17.8	.007	
Economic conditions	6	4	8	5.5	.34	
Policy or government	16	10.7	27	18.5	3.56	

*$p<.05$; **$p<.01$; ***$p<.001$; [a]$\chi^2(8, N = 154) = 8.01$, $p = .43$; *z-score indicates frame is significantly associated with news level.*

TABLE 5: Frequency and chi-square results for sources cited in controversial and non-controversial articles

Source	No Controversy *n* =141		Controversy *n* = 154			
	n	%	*n*	%	$\chi^2(1)$	*Z*
Doctors	16	11.34	33	21.42	5.40*	-2.37**
Other health care providers	8	5.67	13	8.44	.853	
Healthcare organization	11	7.80	14	9.09	.158	
Government or elected officials	65	46.09	92	59.74	5.50*	-2.36**
Legal or law enforcement	63	44.68	73	47.40	.22	
Government health agencies	30	21.27	61	39.61	11.59***	-3.50***
Pharmaceutical industry	6	4.25	54	35.06	43.12***	-7.33***
Persons with problematic opioid use	20	14.18	22	14.28	.001	
Family members (of people who use)	9	6.38	12	7.79	.22	
Researchers, field experts, academics	24	17.02	55	35.71	13.11***	-3.74***
Media sources/journalists	21	14.89	36	23.37	3.39	
Private sector/nonprofit/NGOs	28	19.85	43	27.92	2.62	
Community members	8	5.67	13	8.44	.85	
Other/None	-	-	1	.06	.92	

*p<.05; **p<.01; ***p<.001

TABLE 6: Frequency and chi-square tests of stigmatizing and medicalizing terms used in Appalachian and legacy news stories

	Appalachian				Elite					
	Articles *n* = 149		Words		Articles *n* = 149		Words			
	n	%	*n*	%	*n*	%	*n*	%	$\chi^2(1)$	*Z*
Medicalizing	23	15.43	55	46.61[a]	31	21.23	63	53.39[a]	1.65	-1.29
Stigmatizing	29	19.46	61	28.77[a]	53	35.57	151	71.23[a]	10.41**	-3.17***
Both	17	11.40			15	10.27			.97	.31

[a]X^2 (1, N = 330) = 10.58, p < .01. *Articles column shows the proportion of stories in the sample containing at least one term; words column shows the total count of biomedical/stigmatizing terms.*

*p<.05; **p<.01; ***p<.001

TABLE 7: Frequency and chi-square results for narratives and trajectories of persons with OUD

	Appalachian		Elite			
	n	%	*n*	%	χ^2	Z
OUD narrative	17	11.4	32	21.9	5.87**	2.44**
Number of OUD narratives						
Singular	17	100%	24	75	5.25	
Two	-		2	6.2		
Three or more	-		6	18.8		
Trajectory	17		46		4.29	
Success	5	29.4	14	30.4		
Attempt- Continuous	-	-	9	19.6		
Attempt - Failure	7	41.2	13	28.2		
No attempt	5	29.4	10	21.8		

*p<.05; **p<.01; ***p<.001; *z-score indicates variable level is significantly associated with news category.*

TABLE 8: Demographic statistics for HCPs surveyed (*N* = 264)

	N	*M*	SD
Age	185	50.1	10.8
Gender	189		
Female	83 (31.4)		
Male	103 (39)		
Other/prefer not say	3 (1)		
Position	247		
Chief/chair	23 (8.7)		
Attending	209 (79.2)		
Fellow	1 (.4)		
Other	12 (4.5)		
Physicians assistant	2 (.8)		
Race	186		
White	149 (56.4)		
Black	7 (2.7)		
Asian	23 (8.7)		
Latin American/Hispanic	3 (1.1)		
Other	4 (1.5)		

TABLE 9: Mean scores and standard deviations for HCP-reported media variables

	N	*M*	SD
Responsible group [a]			
Medical providers	240	3.32	.74
Individual patients	238	3.58	.86
Policymakers	239	3.15	.78
Pharma	239	3.93	1.02
Rx campaign misleading[b]	189	3.20	.95
Patient media mention[c]	221	2.32	1.0
News exposure	230	2.79	.93
Patient misperceptions[b]	223	3.49	.80
Patient trust[b]	206	4.20	.63
Efficacy[b]	225	3.06	.88

[a]1 = not responsible at all, 5 = extremely responsible; [b]1=strongly disagree, 5 = strongly agree; [c]1= never, 5 = very frequently.

TABLE 10: Standardized coefficients for perceived patient misperception, trust, and efficacy regressed on HCP news media exposure controlling for age and gender

	Patient misperception	Patient trust	Prescribing efficacy
HCP age	-.17*	.09	.06
HCP gender	.034	.01	.04
News exposure	.276***	.13	.126
R^2	.084	.016	.009

*p<.05; **p<.01, ***p<.001

TABLE 11: Standardized coefficients for perceived patient misperception, trust, and efficacy regressed on patient media mentions controlling for age and gender

	Patient Misperception	Patient Trust	Prescribing Efficacy
HCP age	-.092	.111	.09
HCP gender	.033	.027	.04
Patient media mention	.239***	.045	.08
R^2	.068	-.001	.001

*p<.05; **p<.01, ***p<.001

TABLE 12: Frequencies of narrative trajectories for individuals with OUD by sample

	App News *n* = 17	Elite News *n* = 46	CDC Rx *n* = 18
Success	5	14	13
Attempt	-	9	1
Failure	7	13	4
No attempt	5	10	-

TABLE 13: Overview of four opioid epidemic discourses: data sources, research questions, and conclusions

Discourse	Data Source	Research questions	Conclusions
News media	● *n* = 146 news stories sampled from the New York Times and the Washington Post between July 1, 2018 and July 1, 2019 ● *n* = 149 news stories sampled from the Louisville Courier-Journal, Raleigh News & Observer/Charlotte Observer, the Charleston Gazette, and the Cleveland Plain Dealer between July 1, 2018 and July 1, 2019	● RQ1: What were the predominant sources, story origins, and frames presented in elite news coverage of the opioid epidemic between July 2018 and July 2019? ● RQ2: What were the predominant story origins, sources, and frames presented in Appalachian regional news coverage of the opioid epidemic between July 2018 and July 2019? ● RQ3: How did opioid epidemic attribution, barrier, remediation, and controversy frames differ between elite news and Appalachian news? ● RQ4: To what extent did national elite news and regional Appalachian news use stigmatizing terms to characterize opioid addiction in stories published between July 2018 and July 2019?	● Government and elected officials were sourced in more than half of elite stories ● Illegal activity was the most common attribution frame in elite news and Appalachian news, followed by medical care ● Government (51%) and legal officials (52%) were top sources in Appalachian news ● Government official portrayals were significantly more positive in Appalachian news stories ● 36% of elite news stories contained a stigmatizing term; 21% contained a medicalizing term ● Appalachian news was positively associated with medicalizing terms; elite news was positively associated with stigmatizing terms ● Elite news provided a balanced distribution of trajectories for individuals with

		OUD; Appalachian news mostly portrayed the failure to recover trajectory (41% of stories)
	• RQ5: To what extent did elite national news and Appalachian news use biomedical terms to characterize opioid addiction in stories published between July 2018 and July 2019? • RQ6a: How were prominent sources portrayed in elite national news stories and Appalachian news stories from July 2018 to July 2019? • RQ6b: Was there a significant difference in how Appalachian and elite news media portrayed prominent sources? • RQ7a: To what extent did national elite news and regional Appalachian news contain personal addiction narrative in stories published between July 2018 and July 2019 • RQ7b: Did the trajectory of individuals with OUD differ between national elite news and regional	

		Appalachian news?	
Campaign	CDC Rx Awareness Campaign material: ● 17 Text Narratives ● 13 Video Narratives	● RQ2a: What is the opioid epidemic narrative told through the Center for Disease Control and Prevention "Rx Awareness" Campaign? ● RQ2b: How do stories of individuals featured in the CDC's Rx Campaign compare to stories of individuals with OUD appearing in news media coverage?	● In more than half of the stories, individuals with OUD start using opioids between the ages of 12 and 17 ● A medical prescribing frame appeared in two-thirds of narratives ● Government, pharmaceutical company influence, and illicit drug trade attribution frames did not appear ● Most (72%) of individuals with OUD recovered ● Qualitative themes include: blind deference to medicine; family as collateral damage; a good life prior to opioids; reaching a desperate low, "rock bottom," before having success; fleeing a memory, feeling, trauma, or secret; and healing through cultural membership ● Campaign narratives use multiple overlapping and competing explanatory frames for individual addiction: storytellers

			are simultaneously victims of the medical imprudence, escapees of inward turmoil, and self-sabotagers exhibiting reckless behavior
Clinical Interactions	*N* = 264 HCPs surveyed from December 2018 to April 2019	● RQ1: To what extent do HCPs attend to opioid news and campaign media? ● RQ2: To what extent do HCPs believe the CDC Rx Awareness message spreads misleading information about opioid risks? ● RQ3: To what extent do HCPs perceive their own self-efficacy to prevent opioid misuse? ● H1: HCP-reported patient media mentions will positively relate to HCP perceived patient misperception. ● H2: HCP-reported patient media mentions will negatively relate to HCP self-efficacy. ● H3: HCP media exposure will positively relate to HCP perceived	HCP exposure to opioid media was low, with 44% reporting seeing opioids in news or other information sources one to two days a week Less than 5% were aware of the CDC ad 77% of HCPs were somewhat or very confident in their prescribing efficacy HCP media exposure was positively related to perceptions of patient opioid misperceptions HCP-reported patient media mentions were positively related to perceptions of patient opioid misperceptions

			patient misperception. ● H4: HCP media exposure will negatively relate to HCP perceptions of patient trust.
Obituaries	*N* = 30 obituaries purposively sampled from Legacy.com between 2016 and 2019	What are the narratives of opioid addiction told in opioid overdose obituaries published between 2017 and 2020?	The prototypical opioid overdose obituary: ● Reveals cause of death in the lead sentence ● Gives a brief biography of the deceased ● Identifies the deceased's misfortune of clashing with opioids ● Brings the narrative full circle to redeem the deceased through storytelling

APPENDIX A: News Content Analysis Codebook

Primary concepts in coding protocol:
Section I (all news articles – about 20 minutes to code)

1. News type
2. Sources
3. Story origin
4. Controversy frame
5. Attribution frame
6. Barrier frame
7. Personal narrative (episodic frame)
8. Remediation frame
9. Stigmatization of opioid addiction
10. Medicalization of opioid addiction

Section II (human interest stories only – additional 5-10 minutes to code)

11. Number of narratives
12. Gender
13. Ethnicity
14. Trajectory
15. Setting

Question	**Codes** *for definitions and examples, see Appendix B	**Final Categories** *some codes were collapsed into categories	**Concept**
	Section I. Code all articles in the sample.		
1a. Human interest story	1. No 2. Yes		
1. News type	1. Hard news story 2. Soft/human interest story 3. Column/editorial/opinion/blog 4. How-to/Q&A/ or instructional article 5. Other	1 = Hard news 2 = Human interest 3 = Column/opinion/editorial 4/5= Other	News type
2. Who are the sources cited in the	1. Doctors (MDs, Dr., medical examiner, medical director, medical	1 = Medical doctors	Sources

story? (select **all** represented at least once in the story) [Select all.]	student, or DO) 2. Other HCPs (Pharmacists, nurses, social workers, therapists, physician assistant, rehabilitation/addiction recovery workers) 3. Health care organization/hospital delivery system/health insurer (for-profit) 4. Policymakers or government officials 5. Government health agency representatives (e.g., FDA, CDC) 6. Legal representatives (lawyers, judges, prosecutors, etc.) 7. Medical or professional association 8. Law enforcement officials 9. Pharmaceutical industry representatives (i.e., Big Pharma, Purdue) 10. Private sector: entrepreneur/business/NGO/health advocate 11. Street drug dealers (no ethnicity mentioned) 12. Individual drug users 13. Family members of drug users 14. Health advocates/NGO representatives 15. Academicians, researchers, scientists, experts in a field 16. Media reports or journalists 17. Other: _____	2 = Other HCPs 3 = Health care org 4 = Policymakers and government 5 = Government health agencies 6 = (6) Legal and/or (8) law enforcement or criminal justice system 7 = Pharmaceutical representatives (including distributors, manufacturers, consultants, and family members tied to organizations) 8 = (10) Private sector and NGO (nonprofits, for-profits; (14) health advocacy groups/individuals; (7) Medical or professional or trade organizations/groups 9. Individuals affected by opioids (12, 13) 10. Family 11. (17/18) Community/Other; (11) Street dealers 11. (15) Researchers/experts 12. Media	
Q2_1a	The medical doctor is portrayed as:	Reverse coded so 3	Actor: MD

	1. Hero (3) 2. Victim (0) 3. Villain (1) 4. Neutral (2)	= hero, 1 = villain.	
Q2_1b	The medical doctor is portrayed as: 1. Responsible 2. Not responsible		Responsibility: MD
Q2_2a	The HCP is portrayed as: 1. Hero 2. Victim 3. Villain 4. Neutral		Actor: HCP
Q2_2b	The HCP is portrayed as: 1. Responsible 2. Not responsible		Responsibility: HCP
Q2_3a	The healthcare enterprise is portrayed as: 1. Hero 2. Victim 3. Villain 4. Neutral		Actor: Healthcare enterprise
Q2_3b	The healthcare enterprise is portrayed as: 1. Responsible 2. Not responsible		Responsibility: Healthcare enterprise
Q2_4a	The government official is portrayed as: 1. Hero 2. Victim 3. Villain 4. Neutral		Actor: Government
Q2_4b	The government official is portrayed as:		Responsibility:

	1. Responsible 2. Not responsible		Government
Q2_5a	The pharmaceutical industry is portrayed as: 1. Hero 2. Victim 3. Villain 4. Neutral		Actor: Health agency
Q2_5b	The pharmaceutical industry is portrayed as: 1. Responsible 2. Not responsible		Responsibility: Health agency
Q2_6a	The government health agency is portrayed as: 1. Hero 2. Victim 3. Villain 4. Neutral		Actor: Agency
Q2_6b	The government health agency is portrayed as: 1. Responsible 2. Not responsible		Responsibility: Agency
Q2_7a	The person with opioid use disorder is portrayed as: 1. Hero 2. Victim 3. Villain 4. Neutral		Individual: Portrayal
Q2_7b	The person with opioid use disorder is portrayed as: 1. Responsible 2. Not responsible		Individual: Responsibility
Q2_8	The family member/relative of the person who uses opioids is portrayed as: 1. Hero 2. Victim		Family: Portrayal

	3. Villain 4. Neutral		
Q2_9	The advocate is portrayed as a: 1. Hero 2. Victim 3. Villain 4. Neutral		Family: Responsibility
Q2_10a	The illicit dealer is portrayed as: 1. Hero 2. Victim 3. Villain 4. Neutral		Illicit: Portrayal
Q2_10b	The illicit dealer is portrayed as: 1. Responsible 2. Not responsible		Illicit: Responsibility
Q3	What event or circumstance triggered this news coverage? ~~1. Breaking news~~ (eliminated after reliability check) 2. Action by a health-care organization or facility 3. Action by a business 4. Action by an NGO/advocacy group 5. Action by protestors 6. Action by a health-care professional (individual) 7. Action by government or health agency 8. Action by private person 9. Action by Pharma 10. Crime, legal action, or court ruling 11. Research findings or publication 12. Reporter-initiative feature or investigation 13. Person/organization writing to voice opinion or make an argument	Recoded: 1 = (2) HC Organization 2 = (3,4,8) Private sector/NGO 3 = (7) Action by government or agency 4 = (9) Action by Pharma 5 = (11) Research findings or publications 6 = (12) Reporter-initiated feature or in-depth investigation 7 = (13) Person writing to express an opinion	Story Origin
4a. Does the story represent multiple sides of an issue,	1. No (skip to 5b) 2. Yes		Conflict presence

debate, or argument?			
4b. What is the nature of the conflict, controversy, or disruption?	1. Over medical science and research 2. Over healthcare/clinical practice or decision making 3. Over a person/population's access to resources 4. Over marketing or sales tactics 5. Over legal action, court cases, or court rulings 6. Over health care policy debate/enactment or government intervention 7. Over nonprofit/nongovernmental organization agency's action or intervention 8. Over law enforcement activities/the punitive system 9. Human morality, choice, or behavior 10. Other controversy _____		Conflict frame
5b. In this article, what is the cause of opioid addiction? [Select all causes cited in the article].	1. Medical care or decision making 2. Injury or pre-existing condition 3. A mental health disorder or trauma 4. Biological predisposition/brain disease 5. Social influence or pressure 6. Individual willpower/morality/control 7. Pharmaceutical marketing and sales tactics 8. Poor oversight or response from government, politicians or government health agencies (FDA, CDC, etc.) 9. Illicit drug trade (local or international) 10. Socioeconomic status, class, or poverty (loss of work) 11. Other ____		Attribution frame
Q6_1-8. In this article, are any of the following suggested as barriers or	1. Stigma 2. Lack of awareness, knowledge, or education 3. Person's willpower to stop using		Barrier frame

challenges to opioid recovery or solving the opioid crisis? [Mark all that apply.]	4. Lack of access to medical care to treat addiction or rehabilitation resources 5. Social environment or economic conditions 6. Policy inaction, current policy, or lack of government intervention (e.g., border control, funding for interventions/programming) 7. Other _____ 8. No barrier		
7a. Is the chronological story of a person or many persons who use or have used opioids portrayed?	1. No 2. Yes		Addiction narrative (episodic frame)
8a. Human interest stories may contain one or multiple stories (vignettes) of individual lives impacted by the opioid epidemic. Which of the following most accurately reflects the content of this story?	1. One individual's story is featured 2. One individual's story is featured prominently with other individual stories are included throughout the article 3. Multiple individuals' stories are equally featured throughout the story 4. None of the above apply. If you choose 1 or 2, you will move to 8b. If you choose 3, you will move to 9a.		Number of narratives
9a-c. Trajectory – multiple opioid users	You marked that there were multiple individual opioid users/patients in the story. For the **first opioid** user identified in the story (in order of appearance), which most accurately represents his/her trajectory: 1. Successful recovery from hardship in spite of opposition. 2. Attempt(s) or continuous effort to		Restorative narrative 1 = highly restorative, 4 = not restorative) 5 = does not apply.

	recover from hardship forestalled by opposition. 3. Failure to recover from hardship forestalled by opposition. 4. No attempt to recover from hardship. For the **second opioid** user identified in the story (in order of appearance), which most accurately represents his/her trajectory: 1. Successful recovery from hardship in spite of opposition. 2. Attempt(s) or continuous effort to recover from hardship forestalled by opposition. 3. Failure to recover from hardship forestalled by opposition. 4. No attempt to recover from hardship. For the **third opioid** user identified in the story (in order of appearance), which most accurately represents his/her trajectory: 4. Successful recovery from hardship in spite of opposition. 3. Attempt(s) or continuous effort to recover from hardship forestalled by opposition. 2. Failure to recover from hardship forestalled by opposition. 1. No attempt to recover from hardship. **After a third opioid user, we will stop coding for trajectory.**		
8b. What is the gender of **the first character**?	1. Male 2. Female 3. Other/not certain		Gender
8c. What is the ethnicity of the first character?	1. White 2. Black 3. Asian		Ethnicity

	4. Hispanic/Latino 5. Native American 6. Other 7. Unclear/not specified		
8c. Where does the action take place?	1. Urban/city 2. Rural/small town 3. Not specified		Setting
11a. Does a source in the article state a solution to the opioid epidemic?	1. No 2. Yes		Solution
11b. According to the story, how responsible are the following entities for **rectifying/ending** the epidemic?	1. Medical system and its providers 2. Politicians or government 3. Pharmaceutical industry 4. Private sector 5. Law enforcement or legal system 6. Community educators or health advocates 7. People who use opioids 8. Research development and alternative therapies 9. Family members and friends of people who use opioids 10. None.		Remediation frame
12_1-3. Please count the number of times the following words or phrases are used to characterize opioid addiction in the article.	1. Abuser _____ 2. User _____ 3. Addict (not addiction) _____		Stigma
13_1-3. Please count the number of times the following words or phrases are used to characterize opioid addiction in the article.	1. Disease _____ 2. Disorder and/or opioid use disorder (OUD) ____ 3. Dependence and/or opioid dependence _____		Biomed

End.	Concludes coding.

APPENDIX B: HCP Survey

Survey Protocol: MD Opioid Media Survey

Block A: Introduction and Background

Introduction

This survey is about health-care providers' perceptions of opioid awareness campaigns. During this survey, you will answer questions about the profession's sense of responsibility for the opioid epidemic. You will also answer questions about your exposure to opioid-related media messages and interactions with patients about opioids.

Finally, you will view a recent public service message about opioids and respond to questions regarding your thoughts about this message.

This survey will last approximately 5-7 minutes, including the 30-second campaign video. You may complete this entire survey on your mobile device. Your responses will provide health campaigners with insight into physicians' perspectives on opioid media messages.

When you complete the survey, you will have the option to enter your name in a random drawing to win a $100 donation to a charitable organization of your choice. Winners will be contacted at the completion of the data collection period.

Your participation is entirely voluntary. The risks of participating in this study are minimal. You will only be required to enter identifying information if you choose to enter the drawing for the donation. After the data collection period (December 31, 2018), all email addresses provided for the drawing will be permanently deleted. The investigators will take great care to ensure personal information is never linked to identifiable information.

If you have any questions about your protections as a participant, please contact the Duke IRB office at (919) 668-5111. For questions about this project, contact the PI at.

Do you consent to participate in this survey?
-Yes, I consent to participate.
-No, I do not consent.

Please click forward to continue.

The first few questions will ask you about your position as a medical doctor and your opioid prescribing patterns.

Please answer the following questions.

A1a. MD Type	What is your current position within your institution?	1. Division chief/department chair 2. Attending 3. Fellow 4. Resident 5. Other: _____	
Block B: Prescribing Patterns			
B1. Licensure	Do you hold a DEA license to prescribe controlled substances?	1= Yes 0=No If no, go to follow-up question: Are you able to prescribe under the supervision of another physician who holds a DEA license? 1-Yes 0=No	
B2.	How often do you prescribe opioid medications?	1. 15 or more times a week 2. 10-14 times a week 3. 5-9 times a week 4. 1-4 times a week 5. 1-4 times a month or less 6. Never	
Block C. Responsibility and Identity Items The next few questions will ask about who is responsible for the nation's opioid epidemic. Please remember that your answers to these questions will remain separate from any identifying information you choose to provide at the conclusion of this survey.			
C1. Med Community Responsibility	In your opinion, how responsible are doctors for the nation's opioid epidemic?	1. Extremely responsible 2. Very responsible 3. Somewhat responsible 4. A little responsible 5. Not at all responsible	Kennedy Hendricks et al. (2017)

C2. Other Responsibility	In your opinion, how responsible are the following groups for contributing to the opioid epidemic?	1. Pharmaceutical companies 2. Individual patients 3. Policymakers 4. Primary care providers 5. Other health providers	
C3. Perceived Social Responsibility (4 items)	To what extent do you agree or disagree with the following statements?	CREATE MATRIX: *Strongly Agree (5) – Strongly Disagree (1)* 1. I would limit my opioid prescribing if that would help to resolve the opioid epidemic in this country. 2. I would consider prescribing medication assisted treatment (MAT) to individuals with opioid use disorder if that would help to resolve the opioid epidemic in this country. 3. Every physician has a professional obligation to help address the opioid epidemic in this country.	O'Donnell, Humeniuk, West, & Tilburt, 2015
C4. Perceived Efficacy (2 items)		CREATE MATRIX 1. How confident are you in your ability to help your patients prevent opioid misuse or abuse? 1 = Extremely confident	Bleich, Bandara, Bennett, Cooper, & Gudzune,2015

		2= Very confident 3 = Somewhat confident 4 = A little confident 5 = Not confident at all. (repeat scale for "successful") 2. How successful are you in your ability to help patients prevent opioid misuse and abuse? 1 = Extremely successful 2= Very successful 3 = Somewhat successful 4 = A little successful. 5 = Not at all successful.	
C5. Collective guilt		CREATE MATRIX *Strongly agree (5) to Strongly disagree (1)* 1. Right now, the prescription opioid epidemic makes me feel guilty as a physician. 2. Right now, the prescription opioid epidemic makes me feel disgusted as a physician.	Caouette, Wahl, & Peetz, 2012
Block D. Media Exposure Items The next few questions ask about how often you see opioids in the media. Please think about information about opioids you've seen or heard in any media source, including websites, newspapers, television, radio, medical blogs, or other information sources.			
D1. Opioid Media Exp	In the past week (seven days), how often did you encounter information about	1=Never 2=1-2 days 3=3-4 days 4=5-6 days 5= Every day	de Vreese & Neijens, 2016

	opioids in the news (from any media source, including newspapers, websites, radio, television, etc.)?		
D2. Opioid Att	How much attention do you pay to media coverage about opioids?	1=None 2= A small amount 3= An average amount 4= A moderate amount 5= A large amount	de Vreese & Neijens, 2016
D3. Campaign exposure	In the past month, have you seen any opioid awareness messages?	-Yes -No	Sly, Heald, & Ray, 2001
Block E. Patient Understandings When answering the next few questions, please reflect on the interactions and conversations you have with your patients in your practice setting.			
E1. Patient misperception	Rate your level of agreement.	CREATE MATRIX Strongly agree (5) to Strongly disagree (1) 1. My patients' understandings of opioids are inaccurate. 2. My patients are confused about the appropriate use of opioids. 3. I often need to correct my patients' misperceptions about opioids.	Southwell & Thorson, 2015

E2: Patient media conversation		How often do your patients mention information about opioids they've seen in the news or an advertisement? 1. Very frequently (5) 2. Frequently 3. Occasionally 4. Rarely 5. Never (1)	
E3. Patient Trust	When it comes to prescribing opioids,	1. My patients know I care about their safety. 2. My patients know I am extremely cautious. 3. My patients completely trust my decisions.	Müller, Zill, Dirmaier, Härter, & Scholl, 2014
Block F. Campaign Responses			
In the next section, you will view a 30-second opioid awareness message. Please watch the video in its entirety and click forward to answer a few questions about the video's message. Click here to continue.			
F1.	Have you ever seen this campaign ad?	1.Yes 2. No	
F2. Misleading information (Violative and truthfulness claims)		To what extent do you agree with the following statements: CREATE MATRIX: Strong agree (5) – Strongly disagree (1) 1. This message contains misleading information about doctors. 2. This ad contains untruthful information about doctors.	Aiken et al., 2015

F3. Perceived Bias		1. This message is biased against doctors. 2. This message is an unfair representation of doctors' role in the opioid epidemic. * 3. The creators of this message are biased against doctors.	Kim, 2017
F4. Effectiveness	This ad is …	a. Convincing … Not convincing b. Effective … Ineffective c. Misleading … Straightforward	Dillard, Shen, & Vail, 2007
Block G. Demographics Before finishing, please provide us with information about you.			
G1. Age		What is your age? [Open, numerical.]	
G2. Gender		What is your gender? 1=Male 2=Female 3=Other	
G3. Race		What is your race? 1=White 2 = African American 3= Asian American 4= Native American 5 = Latin American 6=Other	
Thank you for taking this survey.			

If you would like to be entered in the drawing for a $100 charitable donation, please click the link below, which will redirect you to the entry form where you will provide your email address for chance to win.

[Redirected to drawing form.] Please provide your email address to be entered in the drawing to win a charitable donation.

BOTH VERSIONS:

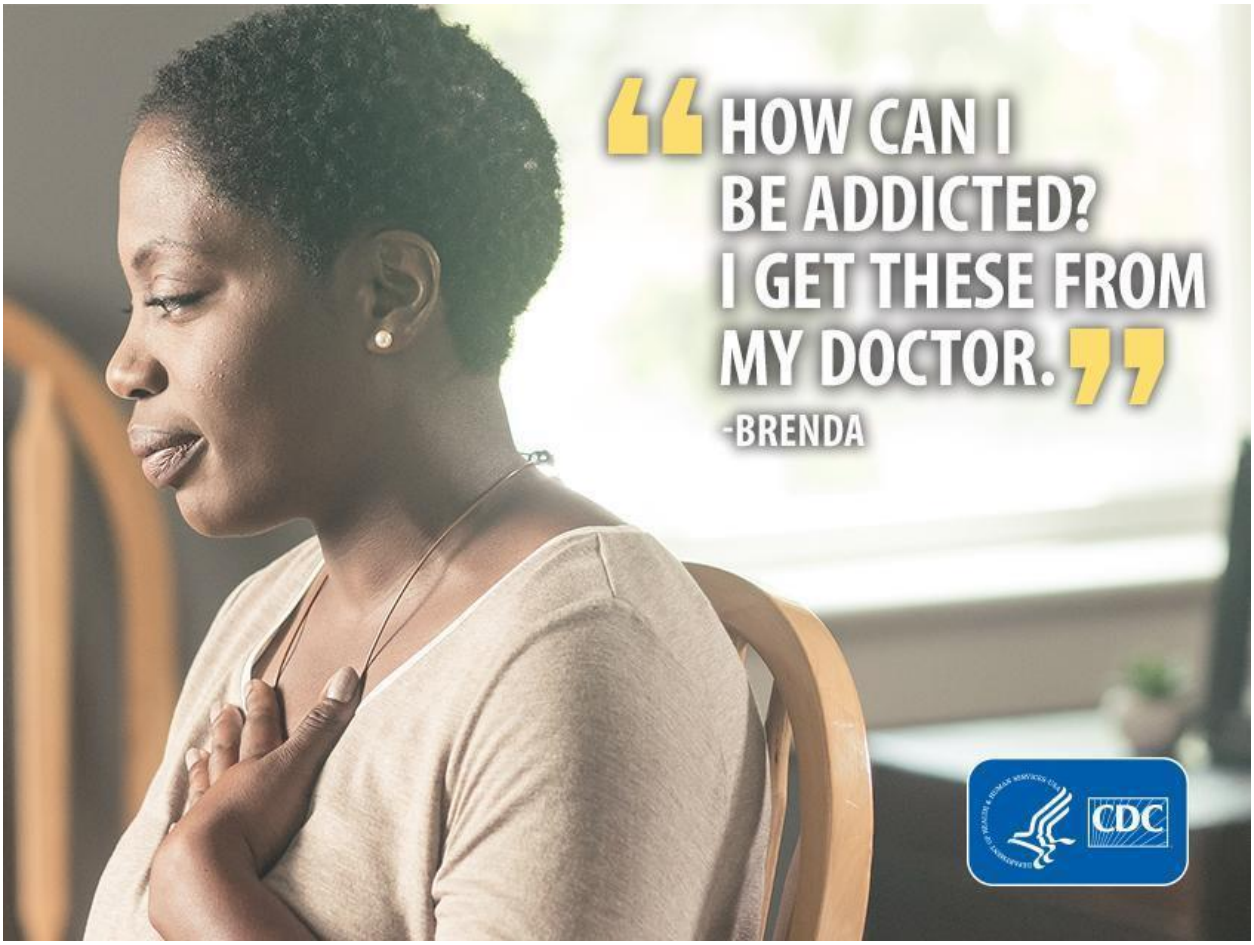
Thank you for participating in this survey. The responses you provided today will help health campaigners better understand and account for the perspectives and challenges of physicians, who play an integral role in helping to resolve the nation's opioid epidemic.

If you have any questions about this survey, please contact etadams@unc.edu.

Total Items: 38
Estimated time: 6.7 minutes (10 seconds per question + 30 second ad + 30 seconds for instructions)

Survey link: https://unc.az1.qualtrics.com/jfe/form/SV_0DmBiRREkwqo1Zb

APPENDIX C: CDC Rx Awareness Narrative Ad "Brenda's Story"



APPENDIX D: Obituary Example

Legacy.com OBITUARIES | FUNERAL HOMES | NEWSPAPERS | SEND FLOWERS Sea

| NEWS & ADVICE | MEMORIALS

Home › Obituaries › Kyle David Hamilton Obituary

Kyle David Hamilton

Obituary

Kyle was born May 13, 1994 to Dave and Sue Hamilton and grew up with his sister Whitney (Schneider) in Columbia, MO. He attended Christian Fellowship School and the Columbia Area Career Center. He is survived by his mother and sister; brother-in-law Jeremy; nephew Riley and niece Penelope; grandparents Jim and Doris Hamilton, uncles Scott and Keith Hamilton and aunt Becky Miller, all of Ohio; close friend Hannah Williams; and many beloved cousins, family members, and a host of wonderful friends. He was preceded in death by his father, grandparents Arnold and Juanita Richardson Poe, and numerous friends who have lost their battle with addiction.

Kyle was called to his eternal home on February 7, 2019. He will forever be remembered for his compassion, warm, loving heart, ability to light up any room with his smile, and easily make friends, as well as his love of Mexican food, dogs, country music and camouflage. Kyle loved deeply and was deeply

loved. He was a happy go-lucky kid and a country boy through and through. He enjoyed spending his time outside and doing everything his Dad did. He lived for adventures and loved hunting (turkey hunting was his favorite), fishing, trapping and the great outdoors. His favorite place was in the woods or by a river. The greatest assets in his life were his strong faith and trust in Jesus as his Savior.

From a young age Kyle loved music. He was often singing, dancing and making up songs. His popular hit "My Name is Johnny" will always be a favorite memory. As an adult he loved his guitar, affectionately named Darla, and enjoyed many hours playing her and writing songs. Baseball was one of Kyle's favorite sports. He grew up rooting for the St. Louis Cardinals (go Cards!), playing basketball and Little League baseball. He loved annual summer vacations to the Northwoods of Wisconsin where he fished, swam, hiked, enjoyed flashlight tag and bonfires with our Wisconsin "family." Hanging with his Ohio family were some of his favorite times.

Kyle's dad was his hero, his rock, his best friend. The two did everything together. Dave taught Kyle how to hunt, fish, trap, throw a baseball and hook a basketball shot, drive a stick shift (even though Kyle was waayyy too young to have a license), how to prepare for and start controlled burns along with a very important skill which Kyle learned on the fly how to move the truck by himself before fire engulfed it and while the soles of his shoes were melting when Kyle was only 12 (these are "adventures" not relayed to Mom for several years)! Most importantly, Dave showed Kyle the important things in life-loving God, family and others.

When Kyle was 13, Dave died suddenly from a heart attack. The two were running together and when they returned home, Dave collapsed and died shortly after. Several years later Kyle told us he blamed himself for his dad's death. Kyle silently carried this burden, this pain, deep in his heart. He put on a brave face but was deeply affected. He turned to drugs and alcohol to

numb the pain; he said it made him feel good for the first time in years. At 17 Kyle began using opioids and this heavily impacted the rest of his life. The following few years were a lineage of treatment centers in various states, separated by times of sobriety and peace in his life. When he was himself we had great times together; he was happy, enjoying life, laughing and loving and living. We had many conversations - he did not want to use and did not want to die; the unrelenting pull of the disease was overpowering and continuously pulled him back in to his "mistress." A life-threatening overdose in November 2016 left Kyle with severe brain damage. He spent weeks in a coma in the ICU and several more months hospitalized. He was unable to talk, eat or move himself; although he was able to move his extremities a bit, he required full time care. Although he could not speak he was alert and knew everyone. He smiled, mimicked expressions, laughed at funny stores, rolled his eyes, shook his head he developed many ways to communicate, and it was clear that he was still very much his loving, sassy self. Some may ask, why would anyone want to live like that? What quality of life could he have? We struggled with the same questions at times, but Kyle made it clear to us-he wanted to live. He wanted to continue his life on earth, be with his family and friends. He fought so hard every day and continued to live and love and share his light wherever he went and with whomever he encountered. His last two years of life were not in complete misery nor in vain. We had many good times together and he continued to make friends in every environment. We marveled at his tenacity, admired, respected and loved him more and more deeply as our days together multiplied. We were given the beautiful gift of Kyle's continued life and are forever grateful.

We take comfort in the knowledge Kyle is in Heaven and with his dad, no doubt scouting out Heaven's woods and rivers. He is whole, healed, and free!

Please join us for a celebration of Kyle's life at Christian Fellowship Church, 4600 Christian Fellowship Road in Columbia, on Saturday, February 16th at 1 pm with visitation following from 2-3:30 pm.

In lieu of flowers, please consider a donation in memory of Kyle:
-Phoenix Programs Inc. is one of the places where Kyle spent time in recovery and felt supported. They service mid-Missourians through inpatient and outpatient substance use treatment programs. Please mail checks to: 90 East Leslie Lane, Columbia MO 65202
-National Wild Turkey Federation hosts an annual Governor's Youth Turkey Hunt, where kids are instructed and taken out on their first hunt in April each year. Please make checks payable to NWTF, write "Governor's Hunt" in the memo section and mail to: 7152 Tomahawk Lane, Steedman MO 65077

Addiction is a disease; it is not a moral failing. It can affect anyone. Those suffering from addiction, friends and families that love an addict, professionals who work to help others--all need support, information and community. A popular slogan in Al Anon is this simple phrase: "When anyone, anywhere reaches out for help, let [someone] always be there...and let it begin with me." So that's what we will do. Far too long people have been silently suffering; it is time to speak up, support one another and end the stigma that follows addiction.

To those who have lost loved ones to substance abuse, those personally struggling, or those heartbroken praying and waiting for your loved one to find recovery from this vicious disease--our hearts and prayers are with you--today and every single day.

Speak out and reach out. We are rooting for you. You are not alone.

REFERENCES

CHAPTER 1

Adams, E.T., Cohen, E.L., Bernard, A., Darnell, W., & Oyler, D.R. (2020). Can opioid vigilance and patient-centered care coexist? *Journal of Opioid Management, 16*(2), 91–101. https://doi:10.5055/jom.2020.0555

Anson, P. (2017, October 3). Patient Advocates Call on Brandeis to Fire Kolodny. *Pain News Network*. https://tinyurl.com/y7k2gxl5

Appalachian Regional Commission. (2018). "Communicating About Opioids in Appalachia: Challenges, Opportunities, and Best Practices." www.orau.org/health-communication/documents/key-findings-report-opioid-communication-in-appalachia.pdf

Barry, C. L., Kennedy-Hendricks, A., Gollust, S. E., Niederdeppe, J., Bachhuber, M. A., Webster, D. W., & McGinty, E. E. (2015). Understanding Americans' views on opioid pain reliever abuse. *Addiction, 111*(1), 85-93. https://doi:10.1111/add.13077

Brechman, J. M., Lee, C., & Cappella, J. N. (2011). Distorting genetic research about cancer: From bench science to press release to published news. *Journal of Communication, 61*(3), 496–513. https://doi:10.1111/j.1460-2466.2011.01550.x

Briggs, C.L. (2011). Biocommunicability. In *A Companion to Medical Anthropology*. Eds. Singer, M., & Erickson, P.I. doi:10.1002/9781444395303.ch23

Briggs, C.L., & Hallin, D.C. (2016). *Making Health Public: How News Coverage is Remaking Media, Medicine, and Contemporary Life*. New York: Routledge. https://doi:10.4324/9781315658049

Briggs, C. L., & Hallin, D. C. (2007). Biocommunicability. *Social Text, 25*(4), 43–66. https://doi:10.1215/01642472-2007-011

Briggs, C.L., & Mantini-Briggs, C. (2004). *Stories in the Time of Cholera*. University of California Press.

Bruner, J. (1986). *Actual Minds, Possible Worlds*. Cambridge, MA: Harvard University Press

Centers for Disease Control and Prevention (2020). Wide-ranging online data for epidemiologic research (WONDER). Atlanta, GA: CDC, National Center for Health Statistics. http://wonder.cdc.gov

Carducci, A., Alfani, S., Sassi, M., Cinini, A., & Calamusa, A. (2011). Mass media health information: Quantitative and qualitative analysis of daily press coverage and its relation with public perceptions. *Patient Education and Counseling, 82*(3), 475-478. https://doi.org/10.1016/j.pec.2010.12.025

Carr, E. S. (2019). The Work of 'Crisis' in Opioid Crisis. *The Journal of Extreme Anthropology*, 3(2): 161-166. https://doi.org/10.5617.6851

Chang, L., & Jacobson, T. (2010). Measuring participation as communicative action: A case study of citizen involvement in and assessment of a city's smoking cessation policy-making process. *Journal of Communication, 60*(4), 660-679. https://doi:10.1111/j.1460-2466.2010.01508.x

Clarke, A. E., Mamo, L., Fishman, J. R., Shim, J. K., & Fosket, J. R. (2003). Biomedicalization: Technoscientific transformations of health, illness, and U.S. biomedicine. *American Sociological Review*, 68(2), 161. https://doi:10.2307/1519765

Cooper, H. L. F., Cloud, D. H., Young, A. M., & Freeman, P. R. (2020). When prescribing isn't enough — Pharmacy-level barriers to buprenorphine access. *New England Journal of Medicine*, 383(8), 703-705. https://doi:10.1056/NEJMp2002908

Dahlstrom M. F. (2014). Using narratives and storytelling to communicate science with nonexpert audiences. Proceedings of the National Academy of Sciences of the United States of America, 111(4), 13614–13620. https://doi.org/10.1073/pnas.1320645111

Estroff, S., & Henderson, G. (2019). Social and Cultural Contributions to Health, Difference, and Inequality. In the *The Social Medicine Reader*, Vol. 2. Durham, NC: Duke University Press.

Fisher, W. (1987). *Human Communication as Narration: Toward a Philosophy of Reason, Value, and Action*. Columbia, SC: University of South Carolina Press.

Goode, L. (2005). *Jurgen Habermas: Democracy and the Public Sphere*. London: Pluto Press. https://doi: 10.2307/j.ctt18fs4vv

Green, M. C. (2006). Narratives and cancer communication. *Journal of Communication, 56*(s1), S163-S183. https://doi:10.1111/j.1460-2466.2006.00288.x

Habermas. J. (2000*). On the Pragmatics of Social Interaction*. Cambridge, MA: The MIT Press.

Hallin, D. C., Brandt, M., & Briggs, C. L. (2013). Biomedicalization and the public sphere: Newspaper coverage of health and medicine, 1960s–2000s. *Social Science & Medicine*, 96, 121–128. https://doi:10.1016/j.socscimed.2013.07.030

Hammer, R., Dingel, M., Ostergren, J., Partridge, B., McCormick, J., & Koenig, B. A. (2013). Addiction: Current criticism of the brain disease paradigm. *AJOB Neuroscience*, *4*(3), 27–32. https://doi:10.1080/21507740.2013.796328

Harter, L. M. (2009). Narratives as dialogic, contested, and aesthetic performances. *Journal of Applied Communication Research*, 37(2), 140–150. https://doi:10.1080/00909880902792255

Heley, K., Kennedy-Hendricks, A., Niederdeppe, J., & Barry, C. L. Reducing health-related stigma through narrative messages. *Health Communication*, 1-12. https://doi:10.1080/10410236.2019.1598614

Holsti, O.R. (1969). *Content analysis for the social sciences and humanities*. Addison-Wesley Publishing.

Hwang, Y., & Southwell, B. G. (2009). Science TV news exposure predicts science beliefs: Real world effects among a national sample. *Communication Research, 36*(5), 724–742. https://doi.org/10.1177/0093650209338912

Kennedy-Hendricks, A., Levin, J., Stone, E., McGinty, E.E., Gollust, S.E., & Barry, C.L. (2019) News media reporting on medication treatment for opioid use disorder amid the opioid epidemic. *Health Affairs*, *38*(4):643-651. https://doi: 10.1377/hlthaff.2018.05075

Kennedy-Hendricks, A., Barry, C., Gollust, S., Ensminger, M., Chisolm, M. M.D., & McGinty, E. (2017). Social stigma toward persons with prescription opioid use disorder: Associations with public support for punitive and public health–oriented policies. *Psychiatric Services*, *68*(5), 462-469. https://doi:10.1176/appi.ps.201600056

Kleinman, A. (1988). *The Illness Narratives: Suffering, Healing, and the Human Condition*. Basic Books.

Kleinman, A. (2005). *What Really Matters: Living a Moral Life Amidst Uncertainty and Danger.*

Kreuter, M. W., Green, M. C., Cappella, J. N., Slater, M. D., Wise, M. E., Storey, D., . . . Woolley, S. (2007). Narrative communication in cancer prevention and control: A framework to guide research and application. *Annals of Behavioral Medicine*, *33*(3), 221-235. doi:10.1007/bf02879904

Kuckartz, U. (2014). Basic concepts and the process of qualitative text analysis. In Kuckartz, U. *Qualitative text analysis: A guide to methods, practice & using software* (pp. 37-64). London: SAGE Publications. https://doi: 10.4135/9781446288719

Lefebvre, R.C., Squiers, L.B., Adams, E.T., Nyblade, L., West, S., & Bann, C. M. (2019). Stigma and prescription opioid addiction and treatment: A national survey. *Annals of Behavioral Medicine*, 53(Suppl 1), S401. https://doi.org/10.1093/abm/kaz007

Lupton, D. (1995). *The Imperative of Health: Public Health and the Regulated Body*. Thousand Oaks, CA: Sage Publications.

Mattingly, C., & Garro, L. (2000). *Narrative and the Cultural Construction of Illness and*

Healing. Los Angeles, CA: University of California Press.

McGinty, E., Kennedy-Hendricks, A., Baller, J., Niederdeppe, J., Gollust, S., & Barry, C. (2016). Criminal activity or treatable health condition? News media framing of opioid analgesic abuse in the United States, 1998–2012. *Psychiatric Services, 67*(4), 405-411. https://doi:10.1176/appi.ps.201500065

Moscovici, S. (2000). *Social representations: Explorations in social psychology*. Cambridge, UK: Polity Press.

Murphy, S. T., Frank, L. B., Chatterjee, J. S., & Baezconde-Garbanati, L. (2013). Narrative versus nonnarrative: The role of identification, transportation, and emotion in reducing health disparities. *Journal of Communication*, 63(1), 116–137. https://doi:10.1111/jcom.12007

National Institutes on Drug Abuse. (2020). Opioid Overdose Crisis. Retrieved from: https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis

Nelkin, D. (1995). *Selling Science: How the Press Covers Science and Technology*.

Prue, C. E., Williams, P. N., Joseph, H. A., Johnson, M., Wojno, A. E., Zulkiewicz, B. A., & Southwell, B. G. (2019). Factors that mattered in helping travelers from countries with Ebola outbreaks participate in post-arrival monitoring during the 2014-2016 Ebola epidemic. *Inquiry*, 56, 46958019894795. https://doi:10.1177/0046958019894795

Quinones, S. (2015). *Dreamland: The True Tale of America's Opiate Epidemic*. New York, NY: Bloomsbury Press.

Rosenberg, C. (1992). *Explaining Epidemics*. Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9780511666865

Schank, R. C., & Berman, T. R. (2002). The pervasive role of stories in knowledge and action. In M. C. Green, J. J. Strange, & T. C. Brock (Eds.), *Narrative impact: Social and cognitive foundations* (p. 287–313). Lawrence Erlbaum: New York.

Schuckit, M.A. (2016). Treatment of opioid-use disorders. *New England Journal of Medicine*, 375(4), 357-368. doi:10.1056/NEJMra1604339

Slater, M.D. (2013). Content analysis as a foundation for programmatic research in communication. *Communication Methods and Measures,* 7(2), 85-93. doi:10.1080/19312458.2013.789836

Southwell, B.G. (2000). Audience construction and AIDS education efforts: Exploring communication assumptions of public health interventions, *Critical Public Health*, *10*(3), 313-319, https://doi: 10.1080/713658253

Southwell, B.G. (2005). Between messages and people: A multilevel model of memory for television content. *Communication Research*, 32, 112-140

Southwell, B.G., Thorson, E.A., & Sheble, L. (2017). The Persistence and Peril of Misinformation. *American Scientist, 105*(6), 372-375.

Street, R. (2003). Communication in Medical Encounters: An Ecological Perspective. In Thompson, T., Dorsey, A., Miller, K., & Parrott, R. (Eds.), *The Handbook of Health Communication*. New York: Taylor and Francis.

Treichler, P. (1999). *How to Have Theory in an Epidemic.* Durham: Duke University Press. https://doi.org/10.1215/9780822396963

Tuchman, G. (1978). *Making news: A study in the construction of reality* (Vol. 256). New York: Free Press.

The Washington Post. (2019, August 8). The Opioid Files. [Online article.] https://www.washingtonpost.com/graphics/2019/investigations/opioid-crisis-victims-in-virginia-demand-justice/

U.S. Department of Health and Human Services. (2020). What is the U.S. Opioid Epidemic? [Webpage]. Retrieved from: https://www.hhs.gov/opioids/about-the-epidemic/index.html

Volkow, N. D., Koob, G. F., & McLellan, A. T. (2016). Neurobiologic advances from the brain disease model of addiction. *The New England Journal of Medicine, 374*(4), 363–371. https://doi.org/10.1056/NEJMra1511480

Volkow, N. (2017). Federal Efforts to Combat the Opioid Crisis: A Status Update on CARA and Other Initiatives. [Congressional testimony]. Retrieved from: https://www.drugabuse.gov/about-nida/legislative-activities/testimony-to-congress/2017/federal-efforts-to-combat-opioid-crisis-status-update-cara-other-initiatives

Wald, P. (2007). *Contagious: Cultures, Carriers, and the Outbreak Narrative.* Durham, NC: Duke University Press.

White, J.C. (2019, August 9). The Third Opium War. *Pain Medicine News*. https://www.painmedicinenews.com/Online-First/Article/08-19/The-Third-Opium-War-Opinion-Commentary-Opioid-Crisis/55779

The White House. (2017). Remarks by President Trump on Combating the Drug Demand and Opioid Crisis. [Online transcript.] https://www.whitehouse.gov/briefings-statements/remarks-president-trump-combatting-drug-demand-opioid-crisis/

The World Health Organization (WHO). (2020). Definitions: emergencies [Webpage]. Retrieved

from: https://www.who.int/hac/about/definitions/en/

CHAPTER 2

Achenboch, J., Koh, J., Bennett, D., Mara, M. (2019, July 24). Flooded with opioids, Appalachia is still trying to recover. *The Washington Post*. https://www.washingtonpost.com/health/flooded-with-opioids-appalachia-is-still-trying-to-recover/2019/07/24/26607328-ad4a-11e9-a0c9-6d2d7818f3da_story.html

Berg, B. (2004). *Qualitative Research Methods for the Social Sciences*. Boston, MA: Allyn & Bacon.

Bock, E. (n.d.). Addiction is a Complex Brain Disease, Says Volkow. *The NIH Record*. https://nihrecord.nih.gov/2020/01/24/addiction-complex-brain-disease-says-volkow

Bohnert, A. S. B., Guy, G. P., & Losby, J. L. (2018). Opioid Prescribing in the United States Before and After the Centers for Disease Control and Prevention's 2016 Opioid Guideline. *Annals Internal Medicine, 169*(6), 367-375. doi:10.7326/M18-1243

Briggs, C., & Hallin, D. (2016) *Making Health Public: How News Coverage is Remaking Media, Medicine, and Contemporary Life*. New York: Routledge. https://doi:10.4324/9781315658049

Buer, L.M. (2020). *Rx Appalachia: Stories of Treatment and Survival in Rural Kentucky*. Chicago: Haymarket.

Carpenter, S. (2007). Elite and non-elite newspapers' portrayal of the Iraq war: A comparison of frames and source use. *Journalism & Mass Communication Quarterly* 84(4):761-776. https://doi.org/10.1177/107769900708400407

Carr, E. S. (2019). The Work of 'Crisis' in Opioid Crisis. *The Journal of Extreme Anthropology, 3*(2): 161-166. https://doi.org/10.5617.6851

Centers for Disease Control and Prevention. (2019, December 18). Nine Health Threats that Made Headlines in 2019: A CDC Review. CDC Newsroom.

Chinni, D., Jamerson, J., & Dougherty, D. (2018, September 19). Opioid Crisis Emerges as Dominant Campaign Theme. *The Wall Street Journal*. https://www.wsj.com/articles/opioid-crisis-emerges-as-a-dominant-campaign-theme-1537349401

Courtwright, David T. (2010). The NIDA Brain Disease Paradigm: History, Resistance and Spinoffs. History Faculty Publications 2. http://digitalcommons.unf.edu/ahis_facpub/2

Dahlstrom M. F. (2014). Using narratives and storytelling to communicate science with nonexpert audiences. Proceedings of the National Academy of Sciences of the United

States of America, *111*(4), 13614–13620. https://doi.org/10.1073/pnas.1320645111

https://www.cdc.gov/media/releases/2019/p1218-nine-health-threats-2019-review.html

Dahlstrom, M. F., Niederdeppe, J., Lijing, G. A. O., & Xiaowen, Z. H. U. (2017). Operational and conceptual trends in narrative persuasion research: comparing health- and non-health-related contexts. *International Journal of Communication* (19328036), 11, 4865-4885.

Dan, V., & Raupp, J. (2018). A systematic review of frames in news reporting of health risks: Characteristics, construct consistency vs. name diversity, and the relationship of frames to framing functions. *Health, Risk & Society*, 20(5-6), 203-226. https://doi:10.1080/13698575.2018.1522422

Entman, R. (1993). Framing theory: Toward a clarification of a fractured paradigm. *Journal of Communication*; Autumn 1993; (43)4.

Eyre, E. (2016, December 7). Drug firms poured 780M painkillers into WV amid rise of overdoses. Retrieved: https://www.wvgazettemail.com/news/legal_affairs/drug-firms-poured-780m-painkillers-into-wv-amid-rise-of-overdoses/article_99026dad-8ed5-5075-90fa-adb906a36214.html

Fitzgerald, K., Paravati, E., Green, M.C., Moore, M.M., & Qian, J.L. (2019): Restorative narratives for health promotion, *Health Communication*. https://doi.org/10.1080/10410236.2018.1563032

Fox, S. (2014, January 15). The social life of health information. The Pew Research Center. http://pewrsr.ch/1hYp7Oy

Gollust, S. E., Fowler, E. F., & Niederdeppe, J. (2019). Television news coverage of public health issues and implications for public health policy and practice. *Annual Review of Public Health*, 40, 167-185. https://doi.org/10.1146/annurev-publhealth-040218-044017

Gomes, T., Tadrous, M., Mamdani, M.M., Paterson, J.M., Juurlink, D.N. (2018). The burden of opioid-related mortality in the United States. *JAMA* Network Open, 1(2):e180217. https://doi:10.1001/jamanetworkopen.2018.0217

Green, M. C. (2006). Narratives and Cancer Communication. *Journal of Communication*, 56(suppl_1), S163–S183. doi:10.1111/j.1460-2466.2006.00288.x

Greico, E. (2019, April 12). For many rural residents in U.S., local news media mostly don't cover the area where they live. Pew Research Center. https://www.pewresearch.org/fact-tank/2019/04/12/for-many-rural-residents-in-u-s-local-news-media-mostly-dont-cover-the-area-where-they-live/

Hallin, D. C., Brandt, M., & Briggs, C. L. (2013). Biomedicalization and the public sphere: Newspaper coverage of health and medicine, 1960s–2000s. *Social Science & Medicine*, 96, 121–128. https://doi:10.1016/j.socscimed.2013.07.030

Hallin, D. C., Manoff, R. K., & Weddle, J. K. (1993). Sourcing patterns of national security reporters. *Journalism Quarterly*, *70*(4), 753–766. doi:10.1177/107769909307000402

Hedegaard, H., Miniño, A.M., & Warner, M. (2018). Drug Overdose Deaths in the United States, 1999–2018. NCHS Data Brief, No. 356. Hyattsville, MD: National Center for Health Statistics.

Heley, K., Kennedy-Hendricks, A., Niederdeppe, J., & Barry, C. L. Reducing health-related stigma through narrative messages. *Health Communication*, 1-12. https://doi:10.1080/10410236.2019.1598614

Hinnant, A., Len-Ríos, M. E., & Young, R. (2013). Journalistic use of exemplars to humanize health news. *Journalism Studies*, 1–16. doi:10.1080/1461670X.2012.721633

Hlavinka, E. (2019, September 5). Pain Specialists Pile on CDC Opioid Guidelines — Chronic pain patients were left out to dry. *Medpage Today*. https://www.medpagetoday.com/meetingcoverage/painweek/81995

Holsti, O.R. (1969). *Content Analysis for the Social Sciences and Humanities*. Reading, MA: Addison-Wesley.

Iyengar, S. (1991). *Is anyone responsible? How television frames political issues*. Chicago, IL: University of Chicago Press.

Jain, P., Zaher, Z., & Mazid, I. (2020) Opioids on Twitter: A content analysis of conversations regarding prescription drugs on social media and implications for message design, *Journal of Health Communication*, *25*(1), 74-81. https://doi:10.1080/10810730.2019.1707911

Jones, C.M. (2013). Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers – United States, 2002-2004 and 2008-2010. *Drug and Alcohol Dependence, 132*(1-2):95-100. doi:10.1016/j.drugalcdep.2013.01.007

Kennedy-Hendricks, A., Barry, C.L., Gollust, S.E., Ensminger, M., Chisolm, M., & McGinty, E.E. (2017). Social Stigma Toward Persons With Prescription Opioid Use Disorder: Associations With Public Support for Punitive and Public Health–Oriented Policies. *Psychiatric Services*, 68(5), 462-469. https://doi:10.1176/appi.ps.201600056

Kennedy-Hendricks, A., Levin, J., Stone, E., McGinty, E. E., Gollust, S. E., & Barry, C. L. (2019). News media reporting on medication treatment for opioid use disorder amid the

opioid epidemic. *Health Affairs*, *38*(4), 643-651, A1-A11. http://dx.doi.org.libproxy.lib.unc.edu/10.1377/hlthaff.2018.05075

Keyes, K. M., Cerdá, M., Brady, J. E., Havens, J. R., & Galea, S. (2014). Understanding the rural-urban differences in nonmedical prescription opioid use and abuse in the United States. *American Journal of Public Health*, *104*(2), e52–e59. https://doi.org/10.2105/AJPH.2013.301709

Kreuter, M.W., Holmes, K., Alcaraz, K., Kalesan, B., Rath, S., Richert, M., McQueen, A., Caito, N., Robinson, L., & Clark, E.M. (2010). Comparing narrative and informational videos to increase mammography in low-income African American women. *Patient Education & Counseling*. 81 Suppl:S6-14. https://doi: 10.1016/j.pec.2010.09.008.

Krippendorf, K. (2013). *Content Analysis: An Introduction to Its Methodology*. Los Angeles: Sage.

Lacy, S., Watson, B. R., Riffe, D., & Lovejoy, J. (2015). Issues and best practices in content Analysis. *Journalism & Mass Communication Quarterly*, 92(4), 791–811. doi:10.1177/1077699015607338

Lacy, S., Fico, F., & Simon, T. F. (1991). Fairness and balance in the prestige press. *Journalism Quarterly*, *68*(3), 363. http://libproxy.lib.unc.edu/login?url=https://www-proquest-com.libproxy.lib.unc.edu/docview/216917743?accountid=14244

Lawson, C. R., & Meyers, C. (2020). Country crisis: A content analysis of rural opioid epidemic news coverage. *Journal of Applied Communications*, 104(2). https://doi.org/10.4148/ 1051-0834.2315

Lecheler, S., & C., de Vreese. (2019). *News Framing Effects*. New York, NY: Routledge.

Lefebvre, R. C., Squiers, L. B., Adams, E., Nyblade, L., West, S., & Bann, C. M. (2019). Stigma and prescription opioid addiction and treatment: A national survey. *Annals of Behavioral Medicine*, 53(Suppl 1), S401. https://doi.org/10.1093/abm/kaz007

Link, B. G., & Phelan, J. C. (2006). Stigma and its public health implications. *The Lancet, 367*(9509), 528-529. https://doi.org/10.1016/S0140-6736(06)68184-1

Mack, K.A., Jones, C.M., & Ballesteros, M.F. (2017). Illicit Drug Use, Illicit Drug Use Disorders, and Drug Overdose Deaths in Metropolitan and Nonmetropolitan Areas — United States. *MMWR Surveillance Summary*; 66(No. SS-19):1–12. http://dx.doi.org/10.15585/mmwr.ss6619a1external icon.

MacQueen, K., McLellan, M. Kay, K., & Milstein, B. In Krippendorf, K., & Bock, M.A. (Eds.), *The Content Analysis Reader*. Thousand Oaks: Sage.

Macy, B. (2018). *Dopesick: Dealers, Doctors, and the Drug Company that Addicted America*. New York: Back Bay Books.

McGinty, E., Kennedy-Hendricks, A., Baller, J., Niederdeppe, J., Gollust, S., & Barry, C. (2016). Criminal activity or treatable health condition? News media framing of opioid analgesic abuse in the United States, 1998–2012. *Psychiatric Services*, *67*(4), 405-411. https://doi:10.1176/appi.ps.201500065

McGinty, E. E., Pescosolido, B., Kennedy-Hendricks, A., & Barry, C.L. (2018). Communication strategies to counter stigma and improve mental illness and substance use disorder policy. *Psychiatric Services, 69*(2). https://doi.org/10.1176/appi.ps.201700076

McGinty, E. E., Stone, E. M., Kennedy-Hendricks, A., & Barry, C. L. (2019). Stigmatizing language in news media coverage of the opioid epidemic: Implications for public health. *Preventive Medicine*, 124, 110-114. https://doi.org/10.1016/j.ypmed.2019.03.018

Miller, C., Purcell, K., Mitchell, A., & Rosenstiel, T. (2012). How people get local news and information in different communities. The Pew Research Center. https://www.pewresearch.org/internet/2012/09/26/how-people-get-local-news-and-information-in-different-communities/

Moe, S., Kirkwood, J., & Allan, G. M. (2019). Incidence of iatrogenic opioid use disorder. *Canadian Family Physician*, *65*(10), 724. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6788669/

Monnat, S. M., & Rigg, K. K. (2016). Examining rural/urban differences in prescription opioid misuse among US adolescents. *The Journal of Rural Health*, 32(2), 204–218. https://doi.org/10.1111/jrh.12141

Muhuri, P.K., Gfroerer, J.C., & Davies, M.C. (2013). Substance Abuse and Mental Health Services Administration. Associations of nonmedical pain reliever use and initiation of heroin use in the United States. *CBHSQ Data Review.* https://www.samhsa.gov/data/report/associations-nonmedical-pain-reliever-use-and-initiation-heroin-use-united-states

National Association of Counties and Appalachian Regional Commission. (2019, May). Opioids in Appalachia: The Role of Counties in Reversing a Regional Epidemic. https://www.naco.org/sites/default/files/documents/Opioids-Full.pdf

National Institutes on Drug Abuse. (2020, August 27). Words Matter - Terms to Use and Avoid When Talking About Addiction. https://www.drugabuse.gov/nidamed-medical-health-professionals/health-professions-

education/words-matter-terms-to-use-avoid-when-talking-about-addiction

National Institute on Drug Abuse. (2008). Drugs, Brains, and Behavior: The Science of Addiction. Washington, DC. https://safercommunity.net/wp-content/uploads/NIDA-Drugs_Brain_and_Behavior.pdf

National Institutes of Health (2020, September 11). Stigma: Overcoming a Barrier to Pain Treatment and Addiction Recovery. https://heal.nih.gov/news/stories/stigma

Nelkin, D. (1995). *Selling Science: How the Press Covers Science and Technology*. W.H. Freeman.

Netherland, J., & Hansen, H.B. (2016). The war on drugs that wasn't: Wasted whiteness, "dirty doctors," and race in media coverage of prescription opioid misuse. *Cultural Medical Psychiatry*, 40, 664–686. https://doi-org.libproxy.lib.unc.edu/10.1007/s11013-016-9496-5

Neuman, R.W., Just, M.R., & Crigler, A.N. (1992). *Common Knowledge: News and the construction of political meaning*. Chicago, IL: University of Chicago Press.

Petraglia, J. (2009). The importance of being authentic: Persuasion, narration, and dialogue in health communication and education. *Health Communication*, *24*(2), 176-185. https://doi:10.1080/10410230802676771

Pew Research Center. (2019, March 26). For Local News, Americans Embrace Digital but Still Want Strong Community Connection. Pew Research Center: Journalism and Media. https://www.journalism.org/2019/03/26/for-local-news-americans-embrace-digital-but-still-want-strong-community-connection/

Quinones, S. (2015). *Dreamland: The True Tale of America's Opiate Epidemic*. New York, NY: Bloomsbury Press.

Remaly, E. (2020, June 10). NTIA Data Reveal Shifts in Technology Use, Persistent Digital Divide. National Telecommunications and Information Administration. https://www.ntia.doc.gov/blog/2020/ntia-data-reveal-shifts-technology-use-persistent-digital-divide

Riffe, D., Lacy, S., Watson, B., & Fico, F. (2019). *Analyzing Media Messages: Using quantitative content analysis in research*. Mahwah, NJ: Lawrence Erlbaum Associates.

Russell, D., Spence, N. J., & Thames, K. M. (2019). 'It's so scary how common this is now:' frames in media coverage of the opioid epidemic by Ohio newspapers and themes in Facebook user reactions. *Information, Communication & Society*, *22*(5), 702-708. https://doi:10.1080/1369118X.2019.1566393

Shaffer, V. A., Scherer, L. D., Focella, E. S., Hinnant, A., Len-Ríos, M. E., & Zikmund-Fisher,

B. J. (2018). What is the story with narratives? How using narratives in journalism changes health behavior. *Health Communication, 33*(9), 1151-1157. https://doi:10.1080/10410236.2017.1333562

Shaffer, V. A., & Zikmund-Fisher, B. J. (2013). All stories are not alike: A purpose-, content-, and valence-based taxonomy of patient narratives in decision aids. *Medical Decision Making, 33*, 4–13. doi:10.1177/ 0272989X12463266

Schwitzer, G. (2010). The Future of Health Journalism. *Public Health Forum, 18*(3). https://doi:10.1016/j.phf.2010.06.012

Schwitzer, G. (2011). News coverage. In Fischhoff, B., Brewer, N.T., Downs J.S., (Eds.), *Communicating Risks and Benefits: An Evidence-Based User's Guide*. Food and Drug Administration, US Department of Health and Human Services; Silver Spring, MD. pp. 185–194.

Scheufele, D.A. (1999). Framing as a theory of media effects. *Journal of Communication, 49*(1), 103-122. https://doi.org/10.1111/j.1460-2466.1999.tb02784.x

Webster, F., Rice, K., & Sud, A. (2020). A critical content analysis of media reporting on opioids: The social construction of an epidemic. *Social Science & Medicine*, 244, 112642. https://doi.org/10.1016/j.socscimed.2019.112642

Willis, E., & Painter, C. (2020). Conceptualization of the public health model of reporting through application: The case of the *Cincinnati Enquirer's* heroin beat. *Health Communication* (online). https://doi.10.1080/10410236.2020.1821963

CHAPTER 3

Adams, E. T., Cohen, E. L., Bernard, A., Darnell, W. H., & Oyler, D. R. (2020). Can opioid vigilance and patient-centered care coexist? A qualitative study of communicative tensions encountered by surgical trainees. *Journal of Opioid Management*, *16*(2), 91-101. https://doi.org/10.5055/jom.2020.0555

American Medical Association. (2020, June 18). AMA urges CDC to revise opioid prescribing guideline. AMA Press Room. https://www.ama-assn.org/press-center/press-releases/ama-urges-cdc-revise-opioid-prescribing-guideline

Bernstein, L. (2019, March 6). Health-care providers say CDC's opioid guidelines are harming pain patients. *The Washington Post*. https://www.washingtonpost.com/national/health-science/health-care-providers-say-cdcs-opioid-guidelines-are-harming-pain-patients/2019/03/06/be5fa49c-4066-11e9-9361-301ffb5bd5e6_story.html

Bohnert, A., Guy, G. P., Jr, & Losby, J. L. (2018). Opioid Prescribing in the United States Before and After the Centers for Disease Control and Prevention's 2016 Opioid Guideline. *Annals of Internal Medicine*, *169*(6), 367–375. https://doi.org/10.7326/M18-1243

Blendon, R., McMurty, C., Benson, J., & Sayde, J. (2016, September 12). The Opioid Abuse Crisis Is a Rare Area Of Bipartisan Consensus. *Health Affairs Blog.* https://www.healthaffairs.org/do/10.1377/hblog20160912.056470/full/

Braddock, K., & Dillard, J.P. (2016) Meta-analytic evidence for the persuasive effect of narratives on beliefs, attitudes, intentions, and behaviors, *Communication*

Monographs, 83:4, 446-467, https://doi:10.1080/03637751.2015.1128555

Centers for Disease Control and Prevention (2017). Addressing the Opioid Crisis: CDC Rx Awareness Campaign Overview. https://www.cdc.gov/rxawareness/pdf/Overview-Rx-Awareness-Resources.pdf

Cicero, T.J., & Ellis, M.S. (2015). Abuse-deterrent formulations and the prescription opioid abuse epidemic in the United States: Lessons learned from OxyContin. *JAMA Psychiatry. 72*(5):424–430. https://doi:10.1001/jamapsychiatry.2014.3043

Corbin, J., & Strauss, A. (2015). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. New York: Routledge.

Crosby, R., & Noar, S.M. (2010) Theory development in health promotion: are we there yet? *Journal of Behavioral Medicine*, *33*(4): 259-63. https://doi:10.1007/s10865-010-9260-1

Dahlstrom, M. F. (2014). Using narratives and storytelling to communicate science with

nonexpert audiences. *Proceedings of the National Academy of Sciences of the United States of America, 111 Suppl 4*(Suppl 4), 13614-13620. doi:10.1073/pnas.1320645111

Dahlstrom, M. F., Niederdeppe, J., Lijing, G. A. O., & Xiaowen, Z. H. U. (2017). Operational and conceptual trends in narrative persuasion research: comparing health- and non-health-related contexts. *International Journal of Communication (19328036), 11*, 4865-4885.

Dowell, D., Haegerich, T.M. & Chou, R. (2016). CDC Guideline for Prescribing Opioids for Chronic Pain— United States. *JAMA*, *315*(15):1624-1645. doi:10.1001/jama.2016.1464

Green, M. C. (2006). Narratives and cancer communication. *Journal of Communication*, *56*(s1), S163-S183. https://doi:10.1111/j.1460-2466.2006.00288.x

Hinyard, L.J., & Kreuter, M.W. (2007). Using narrative communication as a tool for health behavior change: A conceptual, theoretical, and empirical overview. *Health Education & Behavior*. 34(5):777-792. https://doi:10.1177/1090198106291963

Igartua, J., Vega, J., & Casanova, J. (2016). Identification with characters, elaboration, and counterarguing in entertainment-education interventions through audiovisual fiction. *Journal of Health Communication, 21*(3):293-300. https://doi:10.1080/10810730.2015.1064494.

Joseph, A., & Silverman, E. (April 24, 2019). Faced with an outcry over limits on opioids, authors of CDC guidelines acknowledge they've been misapplied. *Stat News*. https://www.statnews.com/2019/04/24/cdc-opioid-prescribing-guidelines-misapplied/

Kreuter, M.W., Holmes, K., Alcaraz, K., Kalesan, B., Rath, S., Richert, M., McQueen, A., Caito, N., Robinson, L., & Clark, E.M. (2010). Comparing narrative and informational videos to increase mammography in low-income African American women. *Patient Education & Counseling*. 81(Suppl): S6-14. https://doi: 10.1016/j.pec.2010.09.008.

Kreuter, M.W., Green, M.C., Cappella, J.N., Slater, M.D., Wise, M.E., Storey, D., Clark, E.M., O'Keefe, D.J., Erwin, D.O., Holmes, K., Hinyard, L.J., Houston, T., Woolley, S. (2007). Narrative communication in cancer prevention and control: A framework to guide research and application. *Annals of Behavioral Medicine, 33*(3): 221-35. https://doi:10.1007/BF02879904

Liu, S., & Yang, J. Z. (2020). Incorporating message framing into narrative persuasion to curb e-cigarette use among college students. *Risk Analysis*, 40(8), 1677-1690. https://doi:10.1111/risa.13502

Moyer-Gusé, E., & Nabi, R. L. (2010). Explaining the effects of narrative in an entertainment television program: Overcoming resistance to persuasion. *Human Communication*

Research, 36(1), 26-52. https://doi:10.1111/j.1468-2958.2009.01367.x

Murphy, S. T., Frank, L. B., Chatterjee, J. S., & Baezconde-Garbanati, L. (2013). Narrative versus nonnarrative: The role of identification, transportation, and emotion in reducing health disparities. *Journal of Communication, 63*(1), 116–137. https://doi:10.1111/jcom.12007

Nabi, R. L., & Green, M. C. (2015). The role of a narrative's emotional flow in promoting persuasive outcomes. *Media Psychology, 18*(2), 137-162. https://doi:10.1080/15213269.2014.912585

Niederdeppe J., Roh, S., & Shapiro, M.A. (2015). Acknowledging individual responsibility while emphasizing social determinants in narratives to promote obesity-reducing public policy: A randomized experiment. *PLoS ONE.* 10(2): e0117565. https://doi.org/10.1371/journal.pone.0117565

Prestin, A., & Nabi, R. L. (2012). Examining determinants of efficacy judgments as factors in health promotion message design. *Communication Quarterly*, 60(4), 520–544. https://doi:10.1080/01463373.2012.704572

ICF. (2020). Case Studies. https://www.icf.com/next/case-studies/cdc-opioid-awareness

Moe, S., Kirkwood, J., & Allan, G. M. (2019). Incidence of iatrogenic opioid use disorder. *Canadian Family Physician*, *65*(10), 724.

Street, R. (2003). Communication in Medical Encounters: An Ecological Perspective. In Thompson, T., Dorsey, A., Miller, K., & Parrott, R. (Eds.), *The Handbook of Health Communication*. New York, NY: Taylor and Francis.

Seth, P., Rudd, R.A., Noonan, R. K., & Haegerich, T. M. (2018). Quantifying the epidemic of prescription opioid overdose deaths. *American Journal of Public Health*, 108(4), 500-502. https://doi:10.2105/AJPH.2017.304265

Thompson, T., & Kreuter, M. W. (2014). Using written narratives in public health practice: A creative writing perspective. *Preventing Chronic Disease, 11*, E94. http://dx.doi.org/10.5888/pcd11.130402

Wakefield, M. A., Loken, B., & Hornik, R. C. (2010). Use of mass media campaigns to change health behaviour. *Lancet, 376*(9748), 1261–1271. https://doi.org/10.1016/S0140-6736(10)60809-4

Zebregs, S., van den Putte, B., Neijens, P., & de Graaf, A. (2015). The differential impact of statistical and narrative evidence on beliefs, attitude, and intention: a meta-analysis. *Health Communication*, *30*(3), 282-289. doi:10.1080/10410236.2013.842528

Zillmann, D. (2006). Exemplification effects in the promotion of safety and health. *Journal of*

Communication, 56, S221–S237. https://doi:10.1111/ j.1460-2466.2006.00291.x

Wilson, N., Kariisa, M., Seth, P., Smith, H., & Davis, N.L. (2020). Drug and Opioid-Involved Overdose Deaths — United States, 2017–2018. *Morbidity and Mortality Weekly Report*, 69:290–297. http://dx.doi.org/10.15585/mmwr.mm6911a4external icon.

CHAPTER 4

Adams, E. T., Cohen, E. L., Bernard, A., & Darnell, W. (2018). Trauma trainees' multiple competing goals in opioid prescription communication. *Qualitative Health Research, 28*(13), 1983-1996. https://doi:10.1177/1049732318784896

Aikin, K. J., Betts, K. R., O'Donoghue, A. C., & Rupert, D. J. Correction of overstatement and omission in direct-to-consumer prescription drug advertising. *Journal of Communication, 65*(4), 596-618. https://doi:10.1111/jcom.12167

Anson, P. (2017, October 3). Patient Advocates Call on Brandeis to Fire Kolodny. *Pain News Network*. Retrieved from: https://www.painnewsnetwork.org/stories/2017/10/3/patient-advocates-call-on-brandeis-to-fire-kolodny

Ballantyne, J. C., & Kolodny, A. (2015). Preventing prescription opioid abuse. *Journal of the American Medical Association, 313*(10), 1059-1059. https://doi:10.1001/jama.2015.0521

Bardes, C. L. (2012). Defining "Patient-Centered Medicine". *The New England Journal of Medicine, 366*(9), 782-783.

Barry, C. L., Kennedy-Hendricks, A., Gollust, S. E., Niederdeppe, J., Bachhuber, M. A., Webster, D. W., & McGinty, E. E. (2016). Understanding Americans' views on opioid pain reliever abuse. *Addiction, 111*(1), 85-93. https://doi:10.1111/add.13077

Bleich, S. N., Bandara, S., Bennett, W. L., Cooper, L. A., & Gudzune, K. A. (2015). U.S. Health professionals' views on obesity care, training, and self-efficacy. *American Journal of Preventive Medicine, 48*(4), 411-418. https://doi.org/10.1016/j.amepre.2014.11.002

Blendon, R. J., Benson, J. M., & Hero, J. O. (2014). Public trust in physicians — U.S. medicine in international perspective. *New England Journal of Medicine, 371*(17), 1570-1572. https://doi:10.1056/NEJMp1407373

Boudewyns, V., Southwell, B., Betts, K., Gupta, C.S., Paquin, R., O'Donoghue, A., & Vazquez, N. (2018). Awareness of Misinformation in Health-Related Advertising. In Southwell, G., Thorson, E., and Sheble, L. (Eds.), *Misinformation and Mass Audiences*. Austin, TX: University of Texas Press.

Caouette, J., Wohl, M. J. A., & Peetz, J. (2012). The future weighs heavier than the past: Collective guilt, perceived control and the influence of time. *European Journal of Social Psychology, 42*(3), 363-371. doi:10.1002/ejsp.1857

Centers for Disease Control and Prevention. (2017, September 25). *Brenda's Rx Awareness Story*. https://youtu.be/DJ71lPsON7M

Centers for Disease Control and Prevention. (2018, August 31). 2018 Surveillance Report of Drug-Related Risks and Outcomes – U.S. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. https://www.cdc.gov/drugoverdose/pdf/pubs/2018-cdc-drug-surveillance-report.pdf

Centers for Disease Control and Prevention. (2017). *CDC Rx Awareness Campaign Overview*. Retrieved from: https://www.cdc.gov/rxawareness/pdf/RxAwareness-Campaign-Overview-508.pdf

Cho, H., & Choi, J. (2010). Predictors and the role of attitude toward the message and perceived message quality in gain- and loss-frame antidrug persuasion of adolescents. *Health Communication*, *25*(4), 303–311. https://doi:10.1080/10410231003773326

Crowley-Matoka, M., & True, G. (2012), No one wants to be the candy man: Ambivalent medicalization and clinician subjectivity in pain management. *Cultural Anthropology*, 27: 689-712. https://doi:10.1111/j.1548-1360.2012.01167.x

Cunningham, C. T., Quan, H., Hemmelgarn, B., Noseworthy, T., Beck, C. A., Dixon, E., Samuel, S., Ghali, W.A., Sykes, L.L., & Jetté, N. (2015). Exploring physician specialist response rates to web-based surveys. *BMC Medical Research Methodology*, *15*(1), 32. doi:10.1186/s12874-015-0016-z

de Vreese, C. H., & Neijens, P. (2016). Measuring media exposure in a changing communications environment. *Communication Methods and Measures, 10*(2-3), 69-80. https://doi:10.1080/19312458.2016.1150441

Dillard, J. P., Shen, L., & Vail, R. G. (2007). Does perceived message effectiveness cause persuasion or vice versa? 17 Consistent Answers. *Human Communication Research*, *33*(4), 467–488. https://doi:10.1111/j.1468-2958.2007.00308.x

Epstein, R. M., & Street, R. L. (2011). Shared Mind: Communication, decision making, and autonomy in serious illness. *The Annals of Family Medicine, 9*(5), 454-461. https://doi:10.1370/afm.1301

Funk, C., & Gramlich, J. (2020). Amid coronavirus threat, Americans generally have a high level of trust in medical doctors. The Pew Research Center. https://www.pewresearch.org/fact-tank/2020/03/13/amid-coronavirus-threat-americans-generally-have-a-high-level-of-trust-in-medical-doctors/

Habermas, J. (1987). *The theory of communicative action: Vol. 2. Lifeworld and system: A critique of functionalist reason*. Boston, MA: Beacon Press.

Hedegaard, H., Warner, M., & Miniño, A.M. (2016). Drug overdose deaths in the United States, 1999–2016. NCHS Data Brief, no. 294. Hyattsville, MD: National Center for Health Statistics. 2017/ CDC. Wide-ranging online data for epidemiologic research (WONDER).

Atlanta, GA: CDC, National Center for Health Statistics. Retrieved at: http://wonder.cdc.gov

Institute of Medicine. (2011). *Relieving pain in America: A blueprint for transforming prevention, care, education and research.* Washington, DC: National Academies Press.

Kennedy-Hendricks, A., Busch, S. H., McGinty, E. E., Bachhuber, M. A., Niederdeppe, J., Gollust, S. E., Webster, D.W., Fiellin, D.A., & Barry, C. L. (2016). Primary care physicians' perspectives on the prescription opioid epidemic. *Drug and Alcohol Dependence, 165*, 61-70. https://doi.org/10.1016/j.drugalcdep.2016.05.010

Kim, H. (2017). The indirect effect of source information on psychological reactance against antismoking messages through perceived bias. *Health Communication, 32*(5), 650. https://doi.org/10.1080/10410236.2016.1160320

Knight, K.R., Kushel, M., Chang, J.S., Zamora, K., Ceasar, R., Hurstak, E., & Miaskowski, C. (2017). Opioid pharmacovigilance: A clinical-social history of the changes in opioid prescribing for patients with co-occurring chronic non-cancer pain and substance use. *Social Science and Medicine,* 186:87-95. https://doi: 10.1016/j.socscimed.2017.05.043.

Mack, K., Jones, C., & Paulozzi, L. (2013). Vital Signs: Overdoses of Prescription Opioid Pain Relievers and Other Drugs Among Women - United States, 1999-2010. *MMWR, 62(26).* http://libproxy.lib.unc.edu/login?url=https://search.proquest.com/docview/1400771448?accountid=14244

Marsh, E., & Yang, B. (2018). Believing Things That Are Not True. In Southwell, G., Thorson, E., and Sheble, L. (Eds.), *Misinformation and Mass Audiences*. Austin, TX: University of Texas Press.

Matthias, M. S., Krebs, E. E., Collins, L. A., & Bergman, A. A. (2013). "I'm Not Abusing or Anything": Patient-physician communication about opioid treatment in chronic pain. *Patient Education and Counseling, 93*(2), 197-202. https://doi:10.1016/j.pec.2013.06.021

Matthias, M., Parpart, N.P., Nyland, K., Huffman, M., Stubbs, D., Sargent, C., & Bair, M. (2010). The Patient-Provider Relationship in Chronic Pain Care: Providers' Perspectives. *Pain Medicine,* 11, 1688-1697. https://doi:10.1111/j.1526-4637.2010.00980

McGinty, E., Kennedy-Hendricks, A., Baller, J., Niederdeppe, J., Gollust, S., & Barry, C. (2016). Criminal activity or treatable health condition? News media framing of opioid analgesic abuse in the United States, 1998–2012. *Psychiatric Services, 67*(4), 405-411. https://doi:10.1176/appi.ps.201500065

Müller, E., Zill, J., Dirmaier, J., Härter, M., & Scholl, I. (2014). Assessment of trust in physician: A systematic review of measures. *PLoS One, 9*(9). http://dx.doi.org.libproxy.lib.unc.edu/10.1371/journal.pone.0106844

Murthy, V. (2016, August). *Letter from U.S. Surgeon General*. https://www.aafp.org/patient-care/public-health/pain-opioids/turn_the_tide.html

Norman, J. (2016, December 26). Americans Rate Health Care Providers High on Honest, Integrity. *Gallup*. https://news.gallup.com/poll/200057/americans-rate-healthcare-providers-high-honesty-ethics.aspx

O'Donnell, E. P., Humeniuk, K. M., West, C. P., & Tilburt, J. C. (2015). The Effects of Fatigue and Dissatisfaction on How Physicians Perceive Their Social Responsibilities. *Mayo Clinic Proceedings, 90*(2), 194-201. https://doi.org/10.1016/j.mayocp.2014.12.011

Quinones, S. (2015). *Dreamland: The True Tale of America's Opiate Epidemic*. New York: Bloomsbury Press.

Seth, P., Scholl, L., Rudd, R.A., & Bacon, S. (2018). Overdose Deaths Involving Opioids, Cocaine, and Psychostimulants – United States, 2015-2016. *MMWR*, 12, 349–358.

Southwell, B. G., Thorson, E. A., & Sheble, L. (2017). The persistence and peril of misinformation. *American Scientist, 105*(6), 372-375.

Southwell, B. G., & Thorson, E. A. (2015). The prevalence, consequence, and remedy of misinformation in mass media systems. *Journal of Communication, 65*(4), 589-595. https://doi: doi:10.1111/jcom.12168

Sly, D.F., Heald, G.R., & Ray, S. (2001). The Florida "truth" anti-tobacco media evaluation: Design, first year results, and implications for planning future state media evaluations. *Tobacco Control*, 10, 9-15. https://doi:10.1136/tc.10.1.9

Street, R. (2003). Communication in Medical Encounters: An Ecological Perspective. In Thompson, T., Dorsey, A., Miller, K., & Parrott, R. (Eds.), *The Handbook of Health Communication*. New York: Taylor and Francis.

Scheurer, D., McKean, S., Miller, J., & Wetterneck, T. (2009). U.S. physician satisfaction: A systematic review. *Journal of Hospital Medicine*, *4*(9), p. 560-568.

CHAPTER 5

"Adam Richard Bear." (2017, May 3). *The Akron Beacon Journal*. https://www.legacy.com/obituaries/ohio/obituary.aspx?n=adam-richard-bear&pid=185275834&fhid=2978

Alali, A. O. (1994). The disposition of aids imagery in *New York Times'* obituaries. *Journal of Death and Dying, 29*(4), 273–289. https://doi.org/10.2190/1FBK-XP6M-VP75-X2PT

"Alexa Lynn Williams." (2019, October 30). *The Burlington Free Press*. https://www.legacy.com/obituaries/burlingtonfreepress/obituary.aspx?n=alexa-lynn-williams&pid=194317796&fhid=29805

"Alexandra Elisabeth Reisner." (2019, December 1). *The Blade*. https://www.legacy.com/obituaries/toledoblade/obituary.aspx?n=alexandra-elisabeth-reisner&pid=194587640

"Alison Michiko Shuemake." (2015, August 28). *Journal-News.* https://www.legacy.com/obituaries/hamilton/obituary.aspx?n=alison-michiko-shuemake&pid=175666719&fhid=22481

"Amber Dawn (Ely) Itskin." (2017, May 16). *The Columbus-Dispatch*. https://www.legacy.com/obituaries/dispatch/obituary.aspx?n=amber-dawn-itskin-ely&pid=185409263

"Anthony E. DeCrosta." (2019, April 27). *The Hartford Courant*. https://www.legacy.com/obituaries/hartfordcourant/obituary.aspx?n=anthony-e-decrosta&pid=192721775&fhid=6957

Aristotle (2002). *On Poetics*. South Bend, IN: St. Augustine's Press.

Baranick, A. (2006, May 1). Beat Guide: Obituaries. *Quill*.

https://www.quillmag.com/2006/05/01/beat-guide-obituaries/

Bilandzic, H., & Busselle, R. (2013). Narrative Persuasion. In Dillard, J.P., & Shen, L., *The Sage Handbook of Persuasion* (p. 200-219). Thousand Oaks, CA: Sage.

"Bradford Kenneth Shargani." (2019, April 3). *The Observer-Dispatch*. https://www.legacy.com/obituaries/uticaod/obituary.aspx?n=bradford-kenneth-shargani&pid=192068169

"Christopher Fontaine." (2017, July 14). *The Worcester Telegram and Gazette.* https://www.legacy.com/obituaries/telegram/obituary.aspx?n=christopher-fontaine&pid=186092415&fhid=15217

"Christopher J. Bramah" (2019, November 22). *Albany Times Union.* https://www.legacy.com/obituaries/timesunion-albany/obituary.aspx?n=christopher-j-bramah&pid=194329724&fhid=22141

"Christopher Magnani." (2018, November 16). *The Harlan Daily Enterprise.* https://www.legacy.com/obituaries/harlandaily/obituary.aspx?n=christian-magnani&pid=190761812&fhid=20575

"Christopher Sean Clifford." (2018, December 18). *The Advocate*. https://obits.theadvocate.com/obituaries/theadvocate/obituary.aspx?n=christopher-sean-clifford&pid=191030324&fhid=17444

Clarke, A. E., Mamo, L., Fishman, J. R., Shim, J. K., & Fosket, J. R. (2003). Biomedicalization: Technoscientific transformations of health, illness, and U.S. biomedicine. *American Sociological Review*, 68(2), 161. doi:10.2307/1519765

Daniels, J., Netherland, J., & Lyons, A. (2018). White women, U.S. popular culture, and narratives of addiction. *Contemporary Drug Problems*, 45(3):329-346.

doi:10.1177/0091450918766914

"David B. LaPlante" (2017, June 15). *The Berkshire Eagle*. https://www.legacy.com/obituaries/berkshire/obituary.aspx?n=david-b-laplante&pid=185807072&fhid=14015

"Elliott Cleveland Eurchuk." (2019, April 22). *The Victoria Times-Colonist.* https://www.legacy.com/obituaries/timescolonist/obituary.aspx?n=elliot-cleveland-eurchuk&pid=192618425

Fisher, W. (1987). *Human Communication as Narration: Toward a Philosophy of Reason, Value, and Action*. Columbia, SC: University of South Carolina Press.

Frank, A. (2013). *The Wounded Storyteller*. Chicago, IL: The University of Chicago Press.

Frankl, V. (1992). *Man's Search for Meaning*. Boston, MA: Beacon Press.

Garro, L. (2000). Cultural Knowledge as a Resource in Illness Narratives. In Mattingly, C., &

Garro, L. (Eds.), *Narrative and the Cultural Construction of Illness and Healing,* p. 70-85. Los Angeles, CA: University of California Press.

Gomes, T., Tadrous, M., Mamdani, M. M., Paterson, J. M., & Juurlink, D. N. (2018). The burden of opioid-related mortality in the United States. *JAMA Network Open, 1*(2), e180217-e180217. https://doi:10.1001/jamanetworkopen.2018.0217

Graham, P. (2017). Crowdsourcing obituaries in the digital age: ABC Open's In Memory

Of. *Media International Australia, 165*(1):51-62. doi:10.1177/1329878X17725916

Hallin, D. C., Brandt, M., & Briggs, C. L. (2013). Biomedicalization and the public sphere: Newspaper coverage of health and medicine, 1960s–2000s. *Social Science & Medicine,* 96, 121–128. https://doi:10.1016/j.socscimed.2013.07.030

Hume, J. (2000). *Obituaries in American Culture*. Jackson, MS: University Press of Mississippi.

"James Christopher Neill." (2019, May 7). *Anderson Independent-Mail*. https://www.legacy.com/obituaries/independentmail/obituary.aspx?n=james-christopher-neill&pid=192815636

"James Wilkins Lipscomb." (2017, May 20). *The Greenville News.* https://www.legacy.com/obituaries/greenvilleonline/obituary.aspx?n=james-wilkins-lipscomb&pid=185438250&fhid=5444

"Joseph Robert Fowler." (2017, September 28). McDonald & Son Funeral Home. https://www.legacy.com/obituaries/name/joseph-fowler-obituary?pid=186812702

"Kevin Donovan." (2019, September 30). *Syracuse Post Standard.* https://obits.syracuse.com/obituaries/syracuse/obituary.aspx?n=kevin-donovan&pid=194035008&fhid=27419

Kirmayer, L. (2000). Broken Narratives: Clinical Encounters and the Poetics of Illness Experience. In Mattingly, C., & Garro, L. (Eds.), *Narrative and the Cultural Construction of Illness and Healing.* Los Angeles: University of California Press.

Kleinman, A. (2016). Caring for memories. *The Lancet, 387*(10038), 2596-2597. https://doi.org/10.1016/S0140-6736(16)30853-4

Kleinman, A. (1988). *The Illness Narratives*. Basic Books.

Knight, K. R., Kushel, M., Chang, J. S., Zamora, K., Ceasar, R., Hurstak, E., & Miaskowski, C. (2017). Opioid pharmacovigilance: A clinical-social history of the changes in opioid prescribing for patients with co-occurring chronic non-cancer pain and substance use. *Social Science & Medicine* (1982), 186, 87–95. https://doi.org/10.1016/j.socscimed.2017.05.043

"Kristopher Kahle." (2019, March 14). *The Hartford Courant*.

https://www.legacy.com/obituaries/hartfordcourant/obituary.aspx?n=kristopher-paul-kahle&pid=191824843&fhid=4764

"Kyle David Hamilton." (2019). [Article on Legacy.com.] https://www.legacy.com/obituaries/name/kyle-hamilton-obituary?pid=191506743&page=10

Lende, H. (2015). *Find the good: unexpected life lessons from a small-town obituary writer*. Chapel Hill, NC: Algonquin Books of Chapel Hill, 2015.

Mattingly, L. (2000). Emergent Narratives. In Mattingly, C., & Garro, L. (Eds.), *Narrative and the Cultural Construction of Illness and Healing,* p. 181-211. Los Angeles: University of California Press.

Mazzei, P. (2019, January 14). Opioids, Car Crashes and Falling: The Odds of Dying in the U.S. *The New York Times*. https://www.nytimes.com/2019/01/14/us/opioids-car-crash-guns.html

McGinty, E. E., Stone, E. M., Kennedy-Hendricks, A., & Barry, C. L. (2019). Stigmatizing language in news media coverage of the opioid epidemic: Implications for public health. *Preventive Medicine,* 124, 110-114. doi:https://doi.org/10.1016/j.ypmed.2019.03.018

McGinty, E., Kennedy-Hendricks, A., Baller, J., Niederdeppe, J., Gollust, S., & Barry, C. (2016). Criminal activity or treatable health condition? News media framing of opioid analgesic abuse in the United States, 1998–2012. *Psychiatric Services,* 67(4), 405-411. https://doi:10.1176/appi.ps.201500065

Mendoza, S., Rivera, A. S., & Hansen, H. B. (2018). Re-racialization of Addiction and the Redistribution of Blame in the White Opioid Epidemic. *Medical Anthropology Quarterly*. doi:10.1111/maq.12449

Netherland, J., & Hansen, H. (2017). White opioids: Pharmaceutical race and the war on drugs that wasn't. *BioSocieties*, 12(2), 217–238. doi:10.1057/biosoc.2015.46

Netherland, J., & Hansen, H. (2016). The war on drugs that wasn't: Wasted whiteness, "dirty doctors," and race in media coverage of prescription opioid misuse. *Culture, Medicine, and Psychiatry*, *40*(4):664-6686.

"Nicholas Carmen Graham." (2018, October 7). *The Courier-Post*. https://www.legacy.com/obituaries/courierpostonline/obituary.aspx?n=nicholas-carmen-graham&pid=190410524&fhid=9354

"Nicholas Hawkins." (2017, September 7). *The Reading Eagle.* https://www.legacy.com/obituaries/harlandaily/obituary.aspx?n=christian-magnani&pid=190761812&fhid=20575

"Nicholas Warren." (2019, April 19). *The Washington Post*. https://www.legacy.com/obituaries/washingtonpost/obituary.aspx?n=nicholas-warren&pid=192586673

Quinones, S. (2015). *Dreamland: The True Tale of America's Opiate Epidemic*. New York, NY: Bloomsbury Press.

"Reghan Michelle Berry." (2017, May 21). *The Greenville News*. https://www.legacy.com/obituaries/greenvilleonline/obituary.aspx?n=reghan-michelle-berry&pid=185500781&fhid=5447&utm_source=MarketingCloud&utm_medium=email&utm_campaign=ObitShare&utm_content=ViewObituary

"Rhiannon 'Annie' DeFranco Kerrigan." (2017). Driscoll Funeral Home. https://www.legacy.com/obituaries/name/rhiannon-defranco-kerrigan-obituary?pid=186181561

"Ryan C. Hurst." (2019, February 22). *The Observer-Dispatch.* https://www.legacy.com/obituaries/uticaod/obituary.aspx?n=ryan-c-hurst&pid=191632805&fhid=13169

"Sandy Oney." (2019, July 12). *Press and Sun-Bulletin*. https://www.legacy.com/obituaries/pressconnects/obituary.aspx?n=sandy-oney&pid=193371843

Seeyle, K.Q. (2015, July 11). Obituaries Shed Euphemisms to Chronicle Toll of Heroin. The *New York Times*. https://www.nytimes.com/2015/07/12/us/obituaries-shed-euphemisms-to-confront-heroins-toll.html

Spector, N. (2019, September 21). How to write the perfect obituary, according to professional writers. Better by Today, NBC News. https://www.nbcnews.com/better/lifestyle/how-write-perfect-obituary-according-professional-writers-ncna1055996

Starck, N. (2008). Obituaries for Sale. *Journalism Practice*, 2(3), 444–452. https://doi-org.libproxy.lib.unc.edu/10.1080/17512780802281172

"Teresa Grasso." (2017, March 16). *Norwood Bulletin*. https://www.legacy.com/obituaries/wickedlocal-norwood/obituary.aspx?n=teresa-grasso&pid=184530714

"Thomas Knight Haner III." (2017, June 8). *The Patriot-News.* https://obits.pennlive.com/obituaries/pennlive/obituary.aspx?n=thomas-knight-haner&pid=185744708#_ga=2.171722726.73094651.1551192747-341338020.1550863097

"Wayne Paul Shepard Jr." (2019, April 30). *Worcester Telegram & Gazette*. https://www.legacy.com/obituaries/telegram/obituary.aspx?n=wayne-shepard&pid=192745811&fhid=20764

Webster, F., Rice, K., & Sud, A. (2020). A critical content analysis of media reporting on opioids: The social construction of an epidemic. *Social Science & Medicine, 244*, 112642. doi:https://doi.org/10.1016/j.socscimed.2019.112642

Wilson, N., Kariisa, M., Seth, P., Smith, H., Davis, N.L. (2020). Drug and Opioid-Involved Overdose Deaths — United States, 2017–2018. *Morbidity and Mortality Weekly Report*, 69:290–297. http://dx.doi.org/10.15585/mmwr.mm6911a4external icon.

CHAPTER 6

Aristotle (2002). *On Poetics*. South Bend, IN: St. Augustine's Press.

Becker, W. C., & Fiellin, D. A. (2020). When Epidemics Collide: Coronavirus disease 2019 (COVID-19) and the opioid crisis. *Annals of Internal Medicine, 173*(1), 59-60. doi:10.7326/m20-1210

Blendon, R., McMurty, C., Benson, J., & Sayde, J. (2016, September 12). The Opioid Abuse Crisis Is a Rare Area of Bipartisan Consensus. *Health Affairs Blog*. https://www.healthaffairs.org/do/10.1377/hblog20160912.056470/full/

Briggs, C., & Hallin, D. (2016) *Making Health Public: How News Coverage is Remaking Media, Medicine, and Contemporary Life*. New York: Routledge. https://doi:10.4324/9781315658049

Czeisler, M. É., Lane, R. I., Petrosky, E., Wiley, J. F., Christensen, A., Njai, R., Weaver, M. D., Robbins, R., Facer-Childs, E. R., Barger, L. K., Czeisler, C. A., Howard, M. E., & Rajaratnam, S. (2020). Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic - United States, June 24-30, 2020. *Morbidity and Mortality Weekly Report*, *69*(32), 1049–1057. https://doi.org/10.15585/mmwr.mm6932a1

Fink, D. S., Santaella-Tenorio, J., & Keyes, K. M. (2018). Increase in suicides the months after the death of Robin Williams in the US. *PLOS ONE*, *13*(2), e0191405. doi:10.1371/journal.pone.0191405

Gollust, S. E., Fowler, E. F., & Niederdeppe, J. (2019). Television news coverage of public health issues and implications for public health policy and practice. *Annual Review of Public Health*, 40, 167-185. https://doi.org/10.1146/annurev-publhealth-040218-044017

Harris, E. (2019, May 15). The Met Will Turn Down Sackler Money Amid Fury Over the Opioid Crisis. *The New York Time*s (online). https://www.nytimes.com/2019/05/15/arts/design/met-museum-sackler-opioids.html

Higgins, C., Smith, B.H., & Matthews, K. (2018). Incidence of iatrogenic opioid dependence or abuse in patients with pain who were exposed to opioid analgesic therapy: A systematic review and meta-analysis. *British Journal of Anesthesia*, *120*(6):1335-1344. https://doi:10.1016/j.bja.2018.03.009

Kamp. J., & Campo-Flores, A. (2020, September 8) The Opioid Crisis, Already Serious, Has Intensified During Coronavirus Pandemic. *The Washington Post*. https://www.wsj.com/articles/the-opioid-crisis-already-serious-has-intensified-during-coronavirus-pandemic-11599557401

Lipari, R.N., & Hughes, A. (2017). How People Obtain the Opioid Prescriptions They Misuse. Substance Abuse and Mental Health Services Administration.

https://www.samhsa.gov/data/sites/default/files/report_2686/ShortReport-2686.html

Kaiser Health News. (2019, September 15). $2B In Federal Grants To Fight Opioid Epidemic Doled Out To 'Communities Where Help Is Most Needed'. Morning Report. https://khn.org/morning-breakout/2b-in-federal-grants-to-fight-opioid-epidemic-doled-out-to-communities-where-help-is-most-needed/

Moore, M., Ali, S., Burnich-Line, D., Gonzales, W., & Stanton, M.V. (2020). Stigma, Opioids, and Public Health Messaging: The Need to Disentangle Behavior from Identity. *American Journal of Public Health, 110*(6), pp. 807-810. https://doi.org/10.2105/AJPH.2020.305628

McGinty, E. E., Stone, E. M., Kennedy-Hendricks, A., & Barry, C. L. (2019). Stigmatizing language in news media coverage of the opioid epidemic: Implications for public health. Preventive Medicine, 124, 110-114. https://doi.org/10.1016/j.ypmed.2019.03.018

National Institutes on Drug Abuse. (2020, July 13). Drug Misuse and Addiction. https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/drug-\misuse-addiction on 2020, October 15

Sackler, J. (2019, April 11). Stop Blaming My Late Husband. Arthur Sackler, for the Opioid Crisis. *The Washington Post*. https://www.washingtonpost.com/opinions/stop-blaming-my-late-husband-arthur-sackler-for-the-opioid-crisis/2019/04/11/5b8478a4-5c89-11e9-a00e-050dc7b82693_story.html

Street, R. (2003). Communication in Medical Encounters: An Ecological Perspective. In Thompson, T., Dorsey, A., Miller, K., & Parrott, R. (Eds.), *The Handbook of Health Communication*. New York: Taylor and Francis.

Tuchman, G. (1978). *Making news: A study in the construction of reality*. New York: Free Press.

Volkow, N. D. (2020). Collision of the COVID-19 and addiction epidemics. *Annals of Internal Medicine, 173*(1), 61-62. https://doi:10.7326/M20-1212

Zelizer, B. (1993). Journalists as interpretive communities. *Critical Studies in Mass Communication, 10*(3), 219-237. https://doi:10.1080/15295039309366865