The New York Times and Media Framing during the Coronavirus Pandemic

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A Senior Thesis submitted in partial fulfillment
of the requirements for graduation
in the Honors Program
Liberty University
Fall 2020

Acceptance of Senior Honors Thesis

This Senior Honors Thesis is accepted in partial
fulfillment of the requirements for graduation from the
Honors Program of Liberty University.

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Abstract

This study analyzes how *The New York Times* framed the coronavirus pandemic via Twitter. Using framing theory, this study examines a collection of tweets from *The New York Times* Twitter account during the week of March 13-20, 2020, which was the week following President Donald Trump's declaration of a national emergency. Each tweet was manually catalogued according to specific set of qualifying keywords. From the collected tweets, this study identified four dominant frames that characterized *The New York Times'* coverage of the pandemic during the week of March 13, 2020. This study also discusses the structure of the "disease narrative" and the rise of Twitter as a legitimate source for news.

Keywords: COVID-19, coronavirus, Twitter, framing, disease narrative

The New York Times' Media Framing During the Coronavirus Pandemic

The coronavirus pandemic, COVID-19, infected over 45 million people around the world in less than a year (John Hopkins, 2020). Global markets stalled, millions were quarantined under stay-at-home orders, and 35 states in the United States adopted some form of mask mandate (Kim et al, 2020). During the COVID-19 pandemic, millions of people turned to the media for the latest updates, information, and advice from researchers and government officials from around the world.

Since the HIV/AIDs crisis in the 1980s, the media have taken a leading role in informing the public about emerging infectious diseases that have the potential to impact large populations (Gerlach, 2016). In the past two decades alone, the world has seen the emergence of SARS, H1N1, Middle Eastern Respiratory Syndrome (MERS), and Ebola, all of which posed the threat of sickness and death to thousands. Throughout each of these disease outbreaks, mass media was used to deliver preventative health messages to in an attempt to deter the public from risky behavior and present objective information about disease outbreaks to mitigate the severity of the spread of infection (Tchuenche & Bauch, 2011). Researchers noted that past epidemics and pandemics have revealed there is a "causal relationship between the mass media health education campaign and the increase in demand for health services during a disease outbreak" (Tchudenche & Bauch, 2011, p. 1).

It is important to note that there is a distinct difference between epidemics and pandemics. Epidemics have an "episodic quality," meaning they are a short-term event rather than a trend (Rosenberg, 1989, p. 1). Green et al. (2002) defined an epidemic as an "occurrence in a community or region of cases of an illness, specified health behavior, or other health-related

events clearly in excess of normal expectancy; the community or region, and the time period in which cases occur, are specified precisely" (p. 3). Recent epidemics include Ebola, MERS, and SARS.

Conversely, in the simplest terms, pandemics are often defined as very large and widespread epidemics, yet researchers have recently made attempts to form a more specific description of key pandemic identifiers (Morens et al., 2009). According to Morens et al. (2009), key indicators of a pandemic include a wide geographic extension, disease movement that can be traced from place to place, high attack rates and explosiveness, minimal immunity among populations, novelty or newness, infectiousness, contagiousness, and disease severity. In the 20th century, the world witnessed the emergence of three pandemics: the 1918 Spanish Flu, the 1957 H2N2 pandemic, and the 1968 flu pandemic (Australian Government, 2011; CDC, 2019). In the 21st century, the H1N1 outbreak of 2009 and COVID-19 were both declared pandemics.

The media's influence over public perception and reliance upon the media for information during a disease crisis reveals the power of the media to impact behavior, while also amplifying public fears and fostering public panic by "proliferating unverified information" (Seo, 2019, p. 2). Researchers in the past have examined the ways in which media reporting can contribute to public perception, awareness, and panic during disease outbreaks by utilizing framing theory (Gerlach, 2016). The purpose of this thesis is to examine how *The New York Times*, one of the most popular American news outlets, framed the coronavirus in its coverage of the COVID-19 virus pandemic (Mitchell et al., 2011). *The New York Times* topped six million subscribers during the COVID-19 pandemic and was ranked the fifth most popular site for news as of August 2020 (Tracy, 2020; Watson, 2020). Using framing theory, this study will analyze

tweets from *The New York Times* Twitter account from the week following March 13, 2020, the day President Donald Trump declared a national emergency in the United States.

The Disease Narrative

When a disease outbreak emerges, the media play a crucial role in disseminating information to quell public fear and promote preventative measures that will slow the spread of the disease (Basch et. al, 2014). As government officials and disease experts put plans into action to avoid crisis, it is the media that act as the bridge between the public and the officials in charge, taking a leading role in influencing public awareness and understanding (Joffe, 2011). Over the past two decades, analysts have noted that the mass media have adopted a standard story format when reporting on disease outbreaks (Gerlach, 2016). This story format is composed of three stages: sounding the alarm, mixed messages, and crisis and containment (Gerlach, 2016).

Media reporting during disease crises moves chronologically through each phase, starting with stage one: sounding the alarm. During this stage, Gerlach (2016) explained that reporting focuses on the speed of the spread of the disease, the need for humanitarian aid, testimonial stories from outbreak areas, and statements from health officials on how the emergence of the disease will affect the Global North. In the next stage, mixed messages, the media turns its focus towards national preparedness plans, border security, aid sent to ailing countries, and speculations on the potential impacts of the disease spread in other regions (Gerlach 2016). Then, in the last phase, crisis and containment, reporting shifts again to encompass the disease spread in an audience's home country, while also "providing reassurances that the medical system can control the disease spread and remove the threat from the community" (Gerlach, 2016, p. 613).

In a similar line of research, Wald (2008) examined the way the media operates during disease crises and how disease stories are told over time. Wald argued that the media's framing of disease crises fits within one overarching frame, which she calls the outbreak narrative:

> the outbreak narrative—in its scientific, journalistic, and fictional incarnations—follows a formulaic plot that begins with the identification of emerging infection, includes discussion of the global networks through which it travels, and chronicles the epidemiological work that ends with its containment. (p. 2)

Later in the text, Wald (2008) also acknowledged the dangers of the outbreak narrative, explaining, "outbreak narratives and *the* outbreak narrative have consequences" due to their ability to influence lifestyle choices, behaviors, and the economy (p. 2). In essence, as the media spreads information during a disease outbreak, they influence public perception and behavior.

In addition to Wald's (2008) findings, similar research has also examined how disease narratives and media reports influence public behavior and emotions. Seo (2019) analyzed the results of online surveys that examined media consumption and public reactions during the 2015 MERS epidemic. The results of this study showed that the consumption of traditional media (i.e., newspapers, television) during the MERS crisis increased negative emotional responses; in other words, "the more media the respondents consumed, the more fear and anxiety they felt about the MERS situation" (p. 14). However, the study noted a correlation between negative emotional reactions and personal protective measures, revealing the media's impact on preventative behaviors during a crisis.

In another study, Zhang and colleagues (2015) analyzed how the media affected health behavior during the H1N1 crisis in 2009. After analyzing the results of an online survey, the study found that repeated exposure to media reports about H1N1 impacted public behavior by

providing the knowledge consumers needed to protect themselves from illness. The study

concluded that, "media coverage of H1N1 flu can provoke negative feelings (fear) and increase

levels of perceived knowledge among the general public, which in turn leads to engagement in

the H1N1 preventative actions" (p. 77). These studies, among others, reveal that the media plays

a significant role in public perception and public action during the various stages of disease

reporting.

Scholars believe the idea of an outbreak narrative or disease narrative has its roots in

fictional representations of catastrophic disease outbreaks featured in pop culture. In a fictional

disease narrative featured in popular entertainment, a "virulent virus appears, mutates and

spreads at a rate that prevents any meaningful response by health authorities before it is already

global" (Gerlach, 2016, p. 621). This fictional narrative typically involves failing governments,

overwhelmed health systems, and a colossal death toll at the hands of an infectious disease or

virus. While this fictional narrative may provide audience-approved entertainment to the masses,

researchers warn that many aspects of this dystopian fantasy have "seeped into media and other

genres" causing the media to frame reality in a way that promotes panic over preparation

(Gerlach, 2016, p. 621; Ungar, 1998). The aforementioned standard story format, established by

the media over years of repeated instances of virus outbreaks and epidemics, is also present in

media reporting during the current coronavirus pandemic.

Rise of Twitter

Twitter is a social media platform that allows users to micro-blog and join larger

conversations about virtually every topic imaginable (Signorini et al., 2011). Users on Twitter

can decide who and what they want to see on their Twitter feed. Twitter is unique from other

social media platforms because of its advanced keyword system, denoted by hashtags (#). When

a Twitter user uses a hashtag with a word, Twitter groups the tweet with other tweets about the same topic. For example, if Twitter users are interested in seeing tweets about the latest episode of the popular TV series *The Walking Dead*, they could simply navigate to Twitter's "Explore" tab and type in the hashtag #TheWalkingDead to see all tweets related to that topic (Zote, 2020).

Since the creation of the platform in 2006, Twitter has grown to more than 330 million monthly global users as of 2019 and is projected to reach 59.6 million U.S. users by 2022 (Clement, 2019). Since Twitter's inception, mainstream American news outlets have created accounts linked to their organizations, giving followers access to the latest stories in real time. Some of the largest media outlets in America, including *The New York Times*, send out hundreds of tweets per day, which often provide a taste of the latest of the stories and breaking news. Researchers have noted that "evidence shows that many people turn to social media to seek crisis-related information, such as safety instructions and news updates" (Seo, 2019, p. 2). During the Covid-19 outbreak, many large media outlets contributed to the buzz on Twitter by sharing tweets with the latest updates.

Researchers, while acknowledging the important role Twitter can play during a crisis, also warn of the consequences of using Twitter as a tool for information dissemination. While information delivered on Twitter can assist in crisis management, analysts caution that social media "may create misperceptions and amplify public fears by fostering public panic and proliferating unverified information" (Seo, 2019, p. 2). A Pew Research study found that 17% of Americans get their news on Twitter, and of all the users on Twitter, 71% said it is their primary social media source for news (Shearer & Greico, 2019). With such an active audience, information dissemination is rapid and everchanging on Twitter, allowing the chance for misinformation to spread.

During the Ebola epidemic, researchers found that mass amounts of misinformation was spread on Twitter. By using a quantitative keyword analysis of tweets over a two-month period in 2014, researchers confirmed that "conspiracy theories, innuendo, and rumors began to propagate wildly on Twitter" (Jin et al., 2014, p. 91). One rumor, which spread rapidly and gained traction on Twitter, claimed that the Ebola virus spread from Guinea to Sierra Leone "via a snake in a bag" (Jin et al., 2014, p. 91).

While users on Twitter have the untamed potential to spread false information, researchers and analysts have also noted the advantages of using Twitter during a crisis. In various crises, Twitter has proven to be an effective tool for information dissemination. During terrorist attacks in Mumbai, India, Twitter provided a flow of updated information through the hashtag #Mumbai (Wasike, 2013). Similarly, Lee et al. (2015) reported that during the Boston Marathon bombings in 2013, social network services (SNS), including Twitter, played a significant role in media reporting. The researchers noted that within one minute of the bombs going off at the finish line of the Boston Marathon, the event was announced on SNS. In terms of a health crisis, like the coronavirus pandemic, the media also uses Twitter to disseminate information to the public regarding the disease spread, the latest updates from disease experts, and the best practices to stay safe.

Framing Theory

Framing theory was originally championed by Goffman in 1974 and since that time, researchers have used Goffman's theory to analyze how the media frame the news and the effect this has on perception. A number of scholars have defined framing theory from different perspectives. Entman (1993) wrote that frames elevate certain pieces of information to make them more salient, meaning more "noticeable, meaningful, or memorable to audiences" (p. 53).

By "elevating" certain aspects of a "perceived reality," media outlets promote "a particular

problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for

the item described" (Entman, 1993, p. 53). Frames are dominant aspects emphasized in a news

story, which essentially "provides clues about the news event itself, suggesting certain attributes,

judgements, and decisions" (Valenzuela et al., 2017, p. 806). Wasike (2013), defined media

frames as the "sense-making and interpretive packages journalists use to contextualize events by

manipulating metaphors, catchphrases and images in order to prioritize some events over others"

(p. 9). The sense-making and interpretive packages refer to the way themes are communicated in

news stories through vocab choice. In the simplest terms, frames help readers understand what

they are reading by diagnosing, evaluating, and prescribing issues (Entman, 1993).

Past researchers have separated media frames into two general categories: generic frames

and issue-specific frames (Wasike, 2013). Generic frames largely account for the majority of

frames found in the news, and these include conflict, human interest, economic impact,

responsibility, and morality (Semetko & Valkenburg, 2000). Issue specific frames, on the other

hand, are more "subjective" and "vary depending on the content being analyzed" based on the

topic and context (Wasike, 2013, p. 9).

Being aware of media framing is important because frames have the potential to impact

the way audiences think about a certain topic. Pan and Kosicki (1993) wrote that framing

analysis "expands beyond agenda-setting research into what people think or talk about by

examining how they think and talk about issues in the news" (p. 70). Pan and Kosicki (1993)

also wrote that framing can be viewed "as placing information in a unique context so that certain

elements of the issue get a greater allocation of an individual's cognitive resources" (p. 57). The

researchers warn that a potential consequence of this could be that the framed elements "become important in influencing individual's judgements or inference making" (p. 57).

Framing theory, while prevalent in traditional news media, is also present on non-traditional news media, such as Twitter. With the rise of Twitter as a news sharing medium, social media editors have taken a leading role in disseminating information in limited characters (Wasicke, 2013). American mainstream media outlets tweet hundreds of times per day, sharing photos, videos, and links to the latest news. Each tweet is typically accompanied by a caption that provides context for the content, which often encapsulates the main idea or an interesting quote from the linked article.

In recent years, various studies have conducting framing analyses on Twitter, examining the way users and media organizations frame events. One team of researchers conducted a study using framing theory to analyze how members of the U.S. Congress frame political tweets using hashtags. In the study, the team of researchers discovered that "without the news as mediator, politicians have an opportunity to directly impact public perceptions and behavior through *framing*" (italics in original publication) (Hemphill et al., 2013, p. 3). The researchers in that study explained that "frames matter because frames influence public opinion," and by specifically choosing to make "some issues or aspects of an issue salient, framing makes some understandings more easily acceptable than others" (p. 6). In this study, researchers discovered that 47% of the tweets analyzed from politicians contained at least one hashtag, and their analysis ultimately came to the conclusion that politicians accomplish framing on Twitter in two ways: "first, by choosing what issues to discuss, and second, by using different hashtags to highlight aspects of issues" (p. 19).

Other studies of a similar nature have examined how news outlets use social media as a vessel to communicate information during a crisis. One study examined the differences between the dominant frames in Egypt's semiofficial newspapers and on the citizen discussion on social media during the 2011 Egyptian uprising to overthrow the Mubarack regime (Hamdy et al., 2012). The results of this study showed that frames varied between the semiofficial newspapers and user interaction on social media. In Egypt's semiofficial media, the press mainly focused on conflict and economic frames, while social media users entirely depended on the human-interest frame.

Methods

This study analyzes *The New York Times'* coverage of the coronavirus pandemic during the week of March 13-20, 2020, using framing theory. Inspiration for this study is largely drawn from the work of Gerlach (2016), who produced research on media frames during the Ebola epidemic. He examined yearlong coverage from news outlets in the global North who provided the most comprehensive coverage of the Ebola outbreak. After applying certain qualifiers, Gerlach was left with a sample of about 485 articles. From this sample, he identified seven dominant story elements in news coverage of Ebola, and from this list, he derived four media frames that characterized the disease narrative. By employing similar methods and applying Gerlach's process to Twitter, there is a lot that can be discovered about how *The New York Times* framed the coronavirus pandemic.

This study used a qualitative method to analyze tweets from *The New York Times* Twitter account. Twitter's "Advanced Search" function was used to manually search through every tweet shared by *The New York Times* during the week of March 13. After copying and pasting the tweets into the spreadsheet, a total of 610 tweets were collected as a sample. However, in order

for a tweet to be counted as part of this study, the tweet had to contain one or more of the

following key words: "coronavirus," "Covid-19," "pandemic," "virus," "crisis," "illness,"

"infection," "outbreak," "quarantine," "self-isolate," "cases," "testing," "ventilators," "social

distancing," "stay at home orders/stay indoors," "lockdown," "economic slowdown," "doctors,"

"financial crisis," "economic fallout," and "health care system." Using this method and criteria,

the researcher narrowed the sample down to a total of 438 tweets.

Once a sample was selected, the compiled tweets were separated into groups based on

their underlying theme. This study utilized the constant comparative method for sorting and

coding tweets. The constant comparative method "combines systematic data collection, coding,

and analysis with theoretical sampling in order to generate theory that is integrated, close to the

data, and expressed in a form clear enough for further testing" (Conrad et al., 1993, p. 280).

Glaser and Strauss (1967) developed four stages that guide constant comparative methodology:

"(1) comparing incidents applicable to each category, (2) integrating categories and their

properties, (3) delimiting the theory, and (4) writing the theory" (p. 105).

Since tweets do not communicate the same depth of information as long form articles,

this study modified Gerlach's (2016) categorization process to fit within the context of Twitter.

Gerlach's method began by identifying dominant themes in Ebola coverage before sorting the

themes into coinciding frames. In this research study, each tweet was first categorized based on

general topic, which included health systems, education, the U.S. response, cancelled events,

travel, international responses, safety guidance, economic impact, White House response, sports,

and election news.

Results

After each tweet was analyzed and sorted according to the its general topic, six general themes were developed from the catalogued tweets. Following Gerlach's (2016) method, this study found the primary themes that characterized the coronavirus narrative as reported by *The New York Times*. Seven dominant media themes were identified:

1. The United States and the White House did not do enough to prevent the virus spread at the start.

2. The U.S. was lagging behind other nations in COVID-19 testing.

3.   Countries who did not enact preemptive measures early enough were hit the hardest.

4. The free access to information about the coronavirus news was critical to slow the spread.

5. Even countries with robust health systems struggled to contain the virus.

6. A significant number of events were cancelled due to coronavirus.

These primary media themes ultimately drove the coronavirus narrative that played out on *The New York Times* twitter account. From these six themes, this study identified four dominant frames that characterized *The New York Times'* coverage of COVID-19 during the week of March 13-20, 2020.

Frame 1: Inadequate Presidential Response

As coronavirus cases were steadily rising in the United States in the beginning of March 2020, the media began extensively reporting on the spread of the virus state by state. At this time, the media turned its attention to the response of U.S. President Donald Trump and his administration, providing updates on policies and decisions surrounding the public health of the United States. On March 13, *The New York Times* shared a series of tweets following President Trump's declaration of a national emergency. One tweet, which was labeled as a "news

analysis," provided a quote from the attached article that said, "It's hard to spin death, as much as the president may try to lay blame for the crisis elsewhere: on Europe, on China, on Former President Obama."

Part of *The New York Times* reporting on Trump centered on the president's comments about the virus, which much of the media claimed were half-truths or outright contradictions to the advice from disease specialists and doctors. In a tweet from March 15, *The New York Times* tweeted, "All through February and early March, the voices of doctors and nurses on social media provided a vital antidote to those of confused and complacent political leaders embodied by President Trump." A day earlier, *The New York Times* tweeted "Fact Check: President Trump falsely blamed the Obama administration for testing shortages, inaccurately described travel restrictions he announced and misstated the role Google was playing in mitigating the coronavirus pandemic."

A few days later, *The New York Times* tweeted two separate series of tweets, highlighting President Trump's comments in comparison to comments from top American disease officials. The first tweet in one of the threads said, "For weeks, President Trump has minimized the seriousness of the coronavirus and mocked concern about it. On Tuesday, he made a remarkable claim: He knew it was a pandemic all along. His own words prove him wrong." This initial tweet was followed by a series of five tweets that highlight quotes from President Trump. One quote dated January 22, the day the first coronavirus case was announced in the United States, said "We have it totally under control. It's one person coming in from China, and we have it under control. It's going to be just fine." A later series of tweets on March 18 sought to highlight how president Trump contradicted disease experts: "For months, President Trump undermined and contradicted the experts – including some in his own administration – about the severity of the

outbreak. We examined the record to prove it. Here's what we found." Following this principle

tweet is a series of tweets with links to articles comparing President Trump's comments verses

the comments of infectious disease experts, like Dr. Anthony Fauci and Dr. Robert Redfield.

These tweets painted President Trump as a careless, inactive president who contradicted experts

and did not listen to advice from disease experts to prevent the spread, further emphasizing the

inadequate response frame.

      The New York Times also reported extensively on the White House response to the virus.

The New York Times reporting featured both the action and "inaction" in the White House

response to the virus. During the week of March 13 through 20, *The New York Times* reported

that the Trump administration was requesting more than one trillion dollars to "blunt" the

economic impact of the coronavirus. This action by the president would eventually send relief

checks to 159 million Americans who met income requirements, but the bill would not be

approved in Congress until weeks after the president declared a national emergency (IRS, 2020).

As many as 35 million Americans did not receive a stimulus check because their adjusted gross

income was high and they did not have any qualifying children (Williams, 2020). On March 16,

The New York Times also tweeted, "Breaking News: President Trump recommended closing

schools and avoiding groups of more than 10 people in new guidelines aimed at slowing the

spread of the coronavirus." While these tweets highlight actions taken by the Trump

administration, *The New York Times* more broadly highlighted the inadequacies of the

president's response.

      In a tweet from March 17, *The New York Times* wrote, "Infighting, turf wars and a

president more concerned with the stock market and media coverage than policy have defined

the Trump White House. They have also defined how it has handled the pandemic." Another

tweet from the same day said, "Crises are treated as day-to-day public relations problems by President Trump. The type of long-term planning required for an unpredictable crisis like a pandemic has brought into stark relief the difficulties that he was bound to face." Similar tweets that were critical of the White House response to the virus highlighted Trump's interaction with the nation's governors. A tweet from March 18 said, "We're who people are looking to.' Since the coronavirus began spreading in the U.S., governors have taken a leading role in responding to the crisis in ways that only heightened the initial inaction from the White House." Andrew Cuomo, Governor of New York, wrote a letter to the Trump administration, which was published in *The New York Times* opinion section on March 15. *The New York Times* shared a link to the opinion piece in a tweet, "In Opinion: 'Every country affected by the crisis has handled it on a national basis,' writes New York Gov. Andrew Cuomo to President Trump. 'Localize testing, federalize shutdowns and task the Army Corps of engineers to expand the hospital capacity." Tweets like these further enforce the media frame that asserts President Trump's response to the coronavirus was inadequate.

Frame 2: Magnitude of Crisis Strained Global Health System

The coronavirus pandemic infected millions of people across the globe, straining the global health system. As governing officials scrambled to quell the effects of the virus, health systems all over the world felt the impact. One of the dominant topics of news in *The New York Times* coverage was the effect of the virus on global health systems. A tweet shared on March 19 emphasized the feelings of desperation as global health system became strained by the demands of the coronavirus. The tweet said, "We are frightened.' Doctors and nurses in Britain fear the coronavirus will overwhelm an already overstretched health system." Other international

hotspots around the world were a primary topic in the coronavirus reporting within this particular

frame.

Leading up to the week of March 13 through 20, Italy had been identified as a new hot

spot of the pandemic, and the media frequently reported on the escalating global health

emergency facing the Italian peninsula. A series of tweets from *The New York Times* on March

13 presented a general narrative of the coronavirus outbreak in Italy. One tweet said, "One

doctor called the coronavirus swamping Italy's health care system an 'epidemiological disaster'

that has 'overwhelmed' doctors." Another tweet from the same day said, "Italy's health care

system is straining mightily. The mayor of one town complained that doctors were forced to

decide not to treat the very old, leaving them to die." In response to surging cases across Italy

and Spain during the month of March, many members of the EU bloc took drastic measures to

shut down their borders, hoping to slow the surge the flow of the virus spread. These tweets

evoke images of a desperate, overwhelmed health system in one of the world's hotspot regions.

This kind of reporting and tweeting further emphasizes the frame that the world was not prepared

to handle a crisis of this magnitude.

During the week of March 13 through 20, a number of tweets within this frame also

discussed global shortages in medical supplies and COVID-19 tests. A tweet from *The New York

Times* on March 15 highlighted the need for more supplies from a Chinese manufacturer's point

of view; the tweet said, "China made half of the world's masks before the coronavirus emerged,

and it has expanded production nearly 12-fold since then. Now that other nations need more

masks, pressure is rising on Beijing to resume exports."

As the pandemic continued to spread across the U.S., doctors began feeling a sense of

alarm concerning the lack of one critical piece of equipment: ventilators. *The New York Times*

shared a number of tweets from concerned doctors across the U.S. about the lack of available

equipment to help keep the most vulnerable populations alive. A tweet from March 17 said, "As

the coronavirus has swept across New York, officials have now become increasingly alarmed

about a bleak reality: The state may not have enough ventilators for everybody who could need

one." Another tweet from the same day says, "We don't have enough ventilators on hand at all,'

said a worker at a prison in Texas. 'We are not a hospital. We don't have the medical staff." A

lack of ventilators in the health system was compounded with lags in the supply chain. *The New*

York Times reported March 18 that "manufacturers say they can't speed up production to meet

the soaring demand" for ventilators worldwide.

Concerns over a lack of ventilators were compounded with a national shortage of

available personal protective equipment (PPE) for health care workers. Without the necessary

protective supplies, the media reported that the lives of hundreds of front-line health care

workers could be lost. A tweet from March 19 said, "A dire shortage of masks, gowns and eye

gear is endangering medical workers' lives as they treat coronavirus patients: 'We are at war

with no ammo." A later tweet, highlighting the desperation felt by individuals in the medical

community, reads, "Doctors, nurses and others are rallying on social media with the hashtag

#GetMePPE – a reference to Personal Protective Equipment – to put pressure on elected leaders

to get them more gear to guard against the coronavirus."

Another area of concern was the lack of coronavirus tests and testing nationwide in the

U.S. As the media praised the testing protocols of South Korea, many nations, including the

United States, worked to implement a robust testing system. However, during the week of March

13 through March 20, *The New York Times* consistently reported that U.S. was lagging behind in

coronavirus testing. In a tweet from March 17, *The New York Times* reported, "Though data on

coronavirus testing has been spotty, what is available shows just how far behind the United

States is in its screening efforts. Here's how testing efforts in the U.S. compare to those in Italy

and South Korea." Another tweet from March 20 simply said, "This is how far behind the U.S. is

in coronavirus testing." *The New York Times*' reporting on a shortage in supplies internationally

further emphasized the frame that a public health crisis of this magnitude strains the global

health system.

Another primary topic within this frame centered on the worldwide race to develop a

vaccine to combat the spread of the coronavirus. Since the emergence of the coronavirus on

December 31, 2019, through the date of the publication of this paper, doctors and scientists

across the world were still in search of a vaccine to prevent the spread of the coronavirus.

However, as the effects of the virus became a reality for many nations in March, vaccine

research accelerated quickly as nations raced to find a cure. In a tweet from March 18, *The New*

York Times reported, "A trial of the first coronavirus vaccine begins 'in record time.' But even if

it works, it's still at least a year away." Without a vaccine, the media emphasized that doctors

were forced to treat patients with what they readily had available. On March 19, *The New York*

Times tweeted, "There is no proven drug treatment for the new coronavirus, and doctors around

the world have been desperately testing an array of medicines in hopes of finding something that

will help patients, especially those who are severely ill." In addition, *The New York Times*

reported on March 19, "Antiviral drugs that had help promise as a potential treatment for the

coronavirus did not work in one of the first major studies in seriously ill patients, researchers

from China reported." These tweets highlight the international search for a vaccine compounded

with the pressure of flailing health systems working to treat rising numbers of Covid-19 patients.

Frame 3: Economic Catastrophe in the U.S.

As the COVID-19 pandemic spread in the United States, it became increasingly clear that the crisis would bring a multifaceted set of challenges. As government officials were scrambling to aid overwhelmed health systems, they were also forced to address the threat of an economic collapse. Soon after President Trump declared a national emergency on March 13, *The New York Times* began covering all angles of the impending crisis, including the economic angle. During this particular week, *The New York Times* published a range of stories detailing fears from economic analysts, predictions from experts on Wall Street, and turbulence in the stock market. Although there were number of topics covered within the economic theme, each tweet fell under the same media frame, which projected that America was on the verge of entering another recession due to the pandemic.

The New York Times shared a quote from an economic analyst on March 13 that said, "In many ways, this is far worse than 2008. There was a sense that 2008 was a show that we had seen before – the panic of 1907, the Great Depression. We know about financial crises." In another tweet from March 15, the *New York Times* wrote, "Not since the attacks of Sept. 11, 2001, has a crisis enveloped so much of the U.S. economy so quickly. As the coronavirus outbreak forces cancellation across the country, some economic say a 'major recession' is likely." Tweets like these that likened the economic fallout of the coronavirus pandemic to that of the 2008 recession reinforce *The New York Times* economic framing. Since 2008 had a financial impact on the more than nine million Americans who lost their jobs, comparing predictions of a COVID-19 economic fallout to the 2008 recession further reinforces the frame that the economic impact of COVID-19 will be catastrophic (Andres, 2018).

Frame 4: Eastern Hemisphere Excelled in Crisis Management

Since the pandemic was a global problem, media outlets, including *The New York Times,* monitored the virus spread in nations around the world. The media continually provided updates on case numbers, travel bans, safety protocols and testing in other nations. One area of focus in *The New York Times'* reporting on international efforts illuminated the difference between national responses in the East verses the West. When reporting on countries in the Eastern Hemisphere, *The New York Times* focused on the success of testing protocols and containment methods. For example, a tweet from March 19 said, "China has drastically reduced the number of new coronavirus cases, flattening the curve. South Korea appears to be headed on a similar path. See where countries are on the curve." A similar tweet from the same day said, "Countries in Asia that seem to have wrestled the coronavirus into submission are now fighting to protect against a new wave of infection from the West." These tweets presented countries in Asia as victors over the coronavirus pandemic very early on by focusing on their efforts to "flatten the curve."

On the other hand, when *The New York Times* reported on efforts from countries in the Western Hemisphere, particularly the United States and Europe, the reporting focused on how virus responses were lacking. In a tweet from March 19, *The New York Times* reported, "For months, British leaders have lagged behind the rest of the world in requiring social distancing. It wasn't until new research this week forecasted a far higher death rate that the government reversed course." The emotive vocabulary in this tweet— "lagged behind" and "higher death rate"—painted the British response as lacking and irresponsible. An earlier tweet from March 17 compares coronavirus responses in Asia verses the United States and Europe; the tweet said, "Singapore, Taiwan and Hong Kong offer successful strategies, at least so far, in facing the coronavirus pandemic. But they use tactics that the U.S. and Europe may not be able to

replicate." By comparing the Western response to the Eastern response, *The New York Times* is further reinforcing the frame that the eastern response to the virus was more effective than the western response to the virus.

Discussion

During epidemics and pandemics of the past, the media have played an important role in disseminating information that can promote preventative behaviors in a population (Zhou et al., 2019). As the media present information, they also promote dominant frames, which emphasize certain elements of a story to impact an audience's perception of reality (Pan & Kosicki, 1993). The findings in this study confirm that media organizations followed a familiar standard story format in disease reporting during the COVID-19 pandemic. Using a qualitative frame analysis, this study analyzed *The New York Times* Twitter coverage of the coronavirus pandemic to determine dominant frames.

A review of the data collected for this study confirmed that the standard story format championed by Gerlach (2016) was applicable to the media's reporting on COVID-19. As previously mentioned, the standard story format is composed of three stages that characterize the media's chronological story line during an epidemic or pandemic. Gerlach's (2016) study discussed how the standard story format was present in media reporting on Ebola.

Because this study was limited to one week of reporting by *The New York Times*, all three stages of disease reporting were not relevant to this study. The first stage of disease reporting is known as the sounding the alarm stage, and encompasses the timeline of the first reports of the crisis and the first signs of disease spread (Gerlach, 2016). During the COVID-19 pandemic, the first stage of disease reporting started on December 31, 2019, when Chinese officials reported the spread of a mysterious virus to the WHO. Throughout the months of January and February,

media reporting focused on the spread of the virus throughout China and surrounding regions,

the speed of the spread, and the comments of health officials on containment measures and future

projections. As the virus spread became severe enough to be declared a pandemic on March 11,

2020, disease reporting in the standard story format shifted from stage one to stage two (WHO,

2020). Since this research only focused on the week of March 13-20, 2020, the first stage of

disease reporting was not relevant for this study. However, during the week of March 13-20,

2020, many attributes of both stage two and stage three were present in *The New York Times'*

reporting on Twitter. In many ways, it appears that stage two and stage three largely overlapped

in the reporting timeline of COVID-19.

In the second stage of disease reporting, known as the "mixed messages" stage, stories

and speculations begin to develop on the "potential/expected/possible impact on other regions,"

and these are typically accompanied by a variety reports on national preparedness plans all over

the world, efforts to send aid, and border security plans (Gerlach, 2016, p. 613). Frame 2 and

frame 4 of this study fit into the second stage of reporting because both frames focused on the

impact of the COVID-19 pandemic internationally. Tweets categorized under Frame 2 largely

focused on the effect of the virus on the global health system, which included stories about

shortages of PPE, tests, and ventilators. Frame 2 could fall somewhere in between stage two and

stage three of disease reporting, because it focused on both the international health system and

the U.S. health system; however, it is included under stage two in this study because the lack of

supplies stemmed from supply chain shortages globally, not just regionally (Burki, 2020).

During this stage of disease reporting, media outlets tell stories of the expected outcomes of the

disease spread in other regions. This was evidenced by tweets during the week of March 13-20,

2020, that discussed the potential impacts of the virus in nations like Italy, Singapore, South

Korea, and the EU bloc.

In a similar vein, Frame 4 included tweets that compared the national preparedness plans

of nations around the world and reported on how nations were strategically combatting the virus.

During the second stage of disease reporting, Gerlach (2016) explained that the media covers

national preparedness plans and border security measures from nations trying to contain a

disease outbreak. During the week of March 13- 20, 2020, *The New York Times* shared tweets

that explained various responses to the crisis, placing emphasis on the successes of the response

in Eastern nations, like South Korea and China, and the pitfalls of preparedness plans in the U.S.

and Europe.

In the third stage of disease reporting, known as the "crisis and containment" stage, the

media focuses its reporting on infections that have reached the audience's country and reports on

the capacity of the health department to handle the crisis (Gerlach, 2016, p. 613). On March 13,

President Trump declared a national emergency in the United States, and in the week following

this declaration, the media began extensively reporting on the virus spread in the U.S. Frames 1

and 3 in this study fall under the third stage of disease reporting because of their focus on the

coronavirus response in the United States, which is where the main headquarters of *The New*

York Times is located. Frame 1 contained tweets detailing President Trump's response to the

virus and highlighted the Trump administration's decisions regarding economic recovery, a

nationwide lack of testing, and a shortage of the necessary treatment supplies for medical

personnel. This falls under the crisis and containment stage because the Trump administration's

response to the virus impacted the spread of infection in the United States as many looked to the

President and his Coronavirus Task Force for answers (Lipton et. al, 2020).

Frame 3 also fits into the third stage of disease reporting because it discussed the economic effects of the coronavirus in the U.S. A significant consequence of the coronavirus spread in the United States was sharp economic downturn due to social distancing and lockdowns, which closed businesses and encouraged people to stay in their homes (Bauer et. al, 2020). In *The New York Times* coverage of the economic fallout of the pandemic, a number of tweets compared the economic crisis from COVID-19 to that of the 2008 recession. The United States saw its last recession between 2007 and 2009 and, during this time, the unemployment rate rose from 5% to 10%, retail sales declines by 3.6% after decades of growth, and the government approved a $700 billion stimulus package to boost the financial sector (Guillén, 2011; Thomas & Hirsch, 2018; U.S. Bureau of Labor Statistics, 2012). The employment decline seen in the 2008 recession happened more rapidly than in any other recession in the recent past, and over 63,000 businesses experienced establishment death (US Bureau of Labor Statistics, 2012). For many Americans, the 2008 recession is still a reminder of how quickly economic downturn can cause financial hardship. Prior research has shown that media framing can impact an audience's behavior and emotions and comparing the COVID-19 crisis to the 2008 recession caused panic among working class citizens and business owners during the early months of the pandemic spread (Seo, 2019; Goodman, 2020).

Limitations and Suggestions for Future Research

Since the coronavirus pandemic is an ongoing crisis at the time of this paper's publication, this study was limited in its research time frame. For this study, the tweet coding method was completed by manually cataloguing each tweet, separating each tweet into categories based on its dominant theme, and then determining dominant frames. Future

researchers may benefit from using a qualitative software to sort tweets, which will be less time consuming and can allow for more content to study.

In the future, this study could be improved by a more complete review of the coverage of the COVID-19 pandemic once the crisis ends. Future research should consider stages of pandemic coverage over a longer time period. This study only covered one major news outlet's coverage for a single week during the pandemic. Future research could include a comparative study examining *The New York Times'* pandemic coverage verses coverage from other major news outlets using the methods of this study. Although this study took a qualitative approach, future research could use a quantitative analysis to consider coverage from broadcast and print outlets.

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