2024

From Viral Rumors to Fact-Checked Information: the Influence of Social Media Platforms and Fact-Checking Organizations on Public Trust during the Covid-19 Crisis

Chinyere Linda Agbasiere
Illinois State University, clagbas@ilstu.edu

FROM VIRAL RUMORS TO FACT-CHECKED INFORMATION: THE INFLUENCE OF SOCIAL MEDIA PLATFORMS AND FACT-CHECKING ORGANIZATIONS ON PUBLIC TRUST DURING THE COVID-19 CRISIS

CHINYERE L. AGBASIERE

100 pages

The COVID-19 pandemic not only disseminated a viral health threat worldwide but highlighted the rapid spread of misinformation, commonly called an "infodemic." This study investigates the influence of social media and fact-checking organizations in shaping public trust and information consumption during the pandemic. Utilizing a mixed-method approach of surveys and interviews, I analyzed 9 interviews. The interviews were analyzed using thematic analysis (Braun & Clarke, 2006) and Owen's (1984) principles of recurrence, repetition, and forcefulness, and three main themes were developed inductively. The findings reveal that while social media was a primary source of information, it also served as a breeding ground for misinformation, impacting public behavior. The results further show that participants felt that fact-checking organizations played a significant role in disseminating verified information. However, their effectiveness varied based on users' pre-existing beliefs and the political charge of the misinformation. The findings establish the importance of credible, transparent, and consistent information dissemination and contribute insights into improving communication in ongoing and future health crises.

KEYWORD: Public trust; social media; fact-checking organizations; misinformation; health communications; crisis communication

FROM VIRAL RUMORS TO FACT-CHECKED INFORMATION: THE INFLUENCE OF SOCIAL MEDIA PLATFORMS AND FACT-CHECKING ORGANIZATIONS ON PUBLIC TRUST DURING THE COVID-19 CRISIS

CHINYERE L. AGBASIERE

A Thesis Submitted in Partial
Fulfillment of the Requirements
for the Degree of

MASTER OF SCIENCE

School of Communication

ILLINOIS STATE UNIVERSITY

2024

FROM VIRAL RUMORS TO FACT-CHECKED INFORMATION: THE INFLUENCE OF SOCIAL MEDIA PLATFORMS AND FACT-CHECKING ORGANIZATIONS ON PUBLIC TRUST DURING THE COVID-19 CRISIS

CHINYERE L. AGBASIERE

COMMITTEE MEMBERS:

Andrew Ventimiglia, Chair

Cheri Simonds

John Baldwin

ACKNOWLEDGMENTS

I am forever grateful to God, who gave me strength. I was able to come this far because of your favor and grace. THANK YOU, LORD! To my incredible committee, who walked this path with me to complete this big feat, I want to say thank you. Thank you, Dr. Andrew, for being very understanding of me and providing me with all the necessary support, especially when I came to meetings carrying Nathan. Your input was always insightful and pointed me in the right direction. Dr. Cheri, Adims Godmother and Angel, thanks for loving and caring for me and opening the doors of your house and office; your support and guidance uplift me in ways I cannot describe. Dr Baldwin, thanks for always being open to answering my questions from my first year as a graduate student; your redirections and insights always came when I needed them.

Thanks to my parents, Ifeanyichukwu and Adaku Agbasiere, for loving me unconditionally and praying for me. Your arms of embrace comfort me, and I could not ask for a better parent. Obinna, Ogechi, Emmanuel, Ebuka, Onyedikachi, and Chibuzor, the ones with whom I am happy to share the same tray of food at any time, my ever-amazing siblings who, regardless of distance, are cheering me on 24/7 without stopping. I love you, and we are doing life forever because that is the deal. To my Bae, the pride upon my head Odinaka Udoh, saying I love you is an understatement; thank you for helping me bring this dream into reality and for allowing me to chase my dreams as an African woman. I could not have asked for a better soul mate and playmate who constantly loves and supports me. To our Baby Adimchimnobi, my sign of God's Love, the one who first called me ma-ma-ma, your gift to our family is one we are always humble and thankful to God for. To my friends Lola and Funke (The best Godmothers), thanks for always helping me care for Adims and watching him so I can sleep. You girls have never made me feel down, and even on days when I cried, you cried with me. Ifeoluwa and Samuel, I am grateful I crossed paths with you; thanks for

ensuring I never miss my antenatal. To Feyipitan, Annie, Jenefas, and Anisat, thank you for constantly checking in and supporting me. I am grateful for the gift of your friendship.

To all the incredible people I met, Jillian, Dr. Lauren, Dr Aimee, and other amazing people in our graduate programs, thank you for your support and friendship. Finally, to everyone who has supported and prayed for me, thank you for walking with me on this journey of achieving my dreams. Cheers to more!!!

C. L. A

CONTENTS

CHAPTER I: INTRODUCTION

The COVID-19 pandemic that emerged in late 2019 caused a severe global health crisis. However, it was not just the virus that was spreading rapidly. False claims about the effectiveness of certain treatments or cures for COVID-19, such as drinking bleach or using specific medications, were also widely spreading on social media platforms. Additionally, misinformation about the origin of the virus and conspiracy theories linking it to bioweapons or 5G technology gained traction among specific communities. These examples demonstrate the dangerous consequences of misinformation and the need to address what is now known as an "infodemic." This phenomenon highlighted how digital media shapes public perceptions and responses during a crisis.

During the initial stages of the COVID-19 pandemic, according to research by the Pew Research Center, many adults in the United States rely on social media as a news source. This reliance on social media for information increases the risk of exposure to false or misleading information, as users can easily share and amplify it. Vosoughi et al. (2018) MIT researchers found that false information spreads six times faster than true information on social media platforms. Research has shown that misinformation about COVID-19 on social media platforms has led to behaviors that increase the risk of infection, such as rejecting public health guidelines like wearing masks or practicing social distancing. This misinformation has also contributed to vaccine hesitancy and resistance, hindering efforts to control the spread of the virus. These studies provide empirical evidence of the impact of digital media on public perceptions and the need to address misinformation. Thus, the rapid spread of misinformation influenced public understanding, behavior, and health outcomes. Misinformation during the COVID-19 pandemic raised several pressing questions and challenges, chief among them being the erosion of public

trust in information sources and the credibility of information itself. As viral rumors and unverified claims proliferated on social media, individuals were left uncertain about what information to trust. This led to individuals self-medicating or avoiding proven medical interventions, worsening health outcomes. Additionally, misinformation about the severity of the virus and the effectiveness of preventive measures led individuals to disregard public health guidelines, contributing to the spread of the virus. The COVID-19 pandemic has brought these concerns to the forefront, underscoring the need for better strategies to combat misinformation and promote accurate information.

Fact-checking organizations have emerged as a tool in combating the proliferation of misinformation and disinformation, particularly during public health crises like the COVID-19 pandemic. Amidst the chaotic information landscape, fact-checking organizations like PolitiFact, FactCheck.org, and AP Fact Check attempted to curb misinformation and provide the public with reliable, fact-based information. However, the effectiveness of fact-checking in countering misinformation and shaping public perception remains a subject of debate. While fact-checking initiatives are often seen as a promising intervention to correct inaccuracies and enhance information accuracy, emerging research suggests that their impact on changing individuals' misconceptions and beliefs may be limited. Kettemann et al.'s (2021) study found that presenting individuals with factual corrections of misinformation may backfire and reinforce their false beliefs, especially if the misinformation is politically charged or aligns with their pre-existing attitudes and values. This phenomenon, known as the "backfire effect," suggests that fact-checking alone may not be enough to combat the spread of misinformation and that other approaches, such as building trust and promoting critical thinking skills, may be necessary as well. Concerns have been raised about the potential for fact-checking organizations to reinforce

pre-existing convictions and politicize themselves inadvertently. This study will explore the multifaceted landscape of fact-checking during the pandemic, examining the extent to which fact-checking organizations succeeded in their mission, the influence of fact-checked information on trust in information sources, and the broader implications for public health communication and information dissemination during future crises. Fact-checking efforts stem from the growing concern about the spread of misinformation and its potential on various aspects of our lives, such as public health, politics, and social issues. A growing body of research suggests that fact-checking may not be as effective as initially thought in changing people's beliefs and attitudes, and in some cases, it may even reinforce prior convictions.

The purpose of this study is to understand how users' perceptions of COVID-19 health recommendations change after using a fact-checking organization, how users' trust in social media affects individuals' susceptibility to COVID-19 information, and finally, how trust in social media and fact-checking organizations affects individuals' susceptibility to COVID-19 information. This study will hold importance for public health and crisis communication because the erosion of public trust in information sources has implications for public health communication during a crisis. When individuals no longer trust the information they receive, they may be less likely to follow public health guidelines. Additionally, the viral spread of misinformation can create confusion and uncertainty among the public, making it more difficult for public health authorities to communicate essential messages effectively, jeopardizing the success of pandemic response efforts. Understanding information virality through social media and the role of fact-checking organizations like FactCheck.org during a pandemic like COVID-19 can inform strategies for more practical information dissemination and response in future crises. Shedding light on the roles of social media platforms and fact-checking organizations will

contribute to developing evidence-based approaches to combat misinformation and enhance public trust in information sources.

Cognitive Dissonance Theory as a Framework

Leon Festinger's (1950) theory of cognitive dissonance proposes that inconsistencies among one's knowledge, opinions, or beliefs regarding the environment, oneself, or behavior can generate an uncomfortable feeling of cognitive dissonance. Festinger's theory suggests that people strive for cognitive consistency and are motivated to resolve this dissonance when faced with conflicting beliefs or behaviors. This can be achieved through various means, such as changing beliefs or attitudes, acquiring new information, or modifying behaviors to align with existing beliefs. Festinger's theory of cognitive dissonance has been influential in understanding how individuals strive for consistency and deal with conflicting thoughts or actions. This theory suggests that people are motivated to seek out an acceptable state when they experience cognitive dissonance (Cindy, 2012). Cognitive dissonance theory provides a helpful framework for understanding how public trust evolved during the COVID-19 crisis, particularly the shift from viral rumors on social media to fact-checked information from authoritative sources. In an era of information overload, individuals encounter cognitive dissonance due to conflicting narratives and misinformation, prompting them to seek validation and credibility in the information they consume. So, my interviews will help determine which of these (cognitive dissonance prompts fact-checking or dissuades fact-checking) is more accurate.

During the pandemic, social media platforms created room for positive and negative information sharing and encouraged the viral spread of COVID-19. However, the emergence of fact-checking organizations played a pivotal role in mitigating this dissonance. Fact-checking organizations helped restore trust and credibility in online sources (James, 2019). As a result,

individuals became more discerning consumers of online content, contributing to a healthier and more informed digital landscape. The interplay between social media platforms and fact-checking organizations shaped public perception and trust. Dissonance theory suggests that individuals navigate conflicting information by gravitating towards verified, fact-checked content aligned with established sources of authority (Joshua et al., 2018). Consequently, trust gradually shifted from viral rumors on social media towards credible, fact-checked information, reinforcing the significance of accurate sources in reshaping public confidence amidst a crisis like COVID-19. Therefore, the study will utilize cognitive dissonance theory to understand and examine participant experiences.

RQ1 How did users' perceptions of COVID-19 health recommendations change after using a fact-checking organization?

RQ2: What factors influence participants' openness to accepting fact-checks during the COVID-19 pandemic?

RQ3: How did users' trust in social media affect individuals' susceptibility to COVID-19 information?

CHAPTER II: LITERATURE REVIEW

In this study, I aim to investigate the influence of social media and fact-checking organizations on the public's trust during the COVID-19 pandemic. This literature review will first describe how social media play a role in modern news consumption and then examine the spread of false information and fact-checking organizations' role in building trust during the COVID-19 pandemic. Additionally, I will explore how social media platforms in previous pandemics and present insights from studies that have examined the relationship between social media, fact-checking organizations, and public trust in pandemic-related information dissemination. By exploring this scholarship, I aim to provide a comprehensive perspective on the role of social media and fact-checking organizations in shaping public trust during pandemics and identify potential strategies for improving public trust.

Social Media Platforms and Their Role in Modern News Consumption

Various users have widely used social media in health contexts. Social media has been defined differently. Some definitions focus on the technological features of social media that distinguish it from traditional technologies. For example, Kaplan and Haenlein (2020) emphasized that social media is an application based on the Internet and Web 2.0 technology. Other definitions focus on the communication features of social media that distinguish it from traditional media. McGowan et al. (2012) defined social media as an online environment where users can contribute to and consume content generated mainly by other users.

The use of social media as a news source is not a new phenomenon. However, the COVID-19 pandemic highlighted the negative and positive impact of how various media platforms disseminate information to the public. However, as Ognyanova (2019) pointed out, mainstream news is often displayed alongside commentary, personal stories, rumors, jokes, and

deliberate misinformation, which challenges people's perceptions of the accuracy and objectivity of information available on social media. Personal interactions and peer ratings are essential predictors of perceived credibility in online information, particularly in times of great uncertainty or vulnerability, when people's social networks might help them decide who and what to trust (Cook & Santana, 2018).

While some may argue that individuals are responsible for verifying information and not solely relying on social media for news, social media platforms have become sources of information for many people. For instance, a study by Zhang et al. (2020) found that WeChat was the most used social media platform among Chinese users for obtaining health information, with users considering information from official government accounts to be the most credible. According to Statista (2022), Facebook was the most used in the United States, with 78.1 percent of adults using the platform as of March 2020. The second-most used platform was Instagram, with 49.5 percent of adults using the image-sharing social platform, 7.7 percent of responding adults said they were not using social media. Since social media allows people to share news instantly without much effort, the research found that people often share news and information without authenticating it, as they may believe it to be factual. Users can share news or information as soon as they receive it through social media platforms (Itamar et al., 2012).

During the COVID-19 pandemic, social media platforms were flooded with false information about the virus, its origin, and potential treatments (González-Padilla, & Tortolero-Blanco, 2020). This resulted in the spread of conspiracy theories and false claims about the effectiveness of certain drugs. Platforms such as Facebook, Twitter, and YouTube were particularly susceptible to the spread of his misinformation. Marco-Franco et al. (2021) found that 28.8% of social media posts about COVID-19 could be classified as misinformation. A study

by ABC News found that 50% of respondents admitted to sharing false information about the virus on social media. Himelein-Wachowiak et al. (2021) found that 66% of bots discussed COVID-19. This proliferation of COVID-19 (mis)information by bots and human susceptibility to believing and sharing misinformation impacted the pandemic. A bot short for robot," is an automated program designed to perform specific tasks without human intervention. Bots can operate on the internet to carry out repetitive tasks, such as sending messages, scraping data, or posting content on social media platforms. These statistics highlighted the potential harm of viral rumors and the need to address this issue. Therefore, addressing the role of social media platforms in the spread of viral rumors will help better protect public health and safety in case of future pandemics.

The Role of Social Media in the Spread of Viral Rumors

Many researchers have focused on the spread of misinformation on social media platforms. Vosoughi et al. (2018) conducted a study on Twitter that found that false information spreads faster and more extensively than true information. The study revealed that social media algorithms often prioritize engaging and sensational content, amplify misinformation, and make it more likely to go viral. During pandemics, this algorithmic influence can quickly spread false claims, highlighting the challenges of curbing the infodemic.

The influence of echo chambers and filter bubbles on misinformation propagation has also been studied. Del Vicario et al. (2016) analyzed the information-sharing patterns on Facebook during the Zika virus outbreak and found that users shared and consumed information that aligned with their preexisting beliefs. This phenomenon can reinforce and perpetuate false narratives within specific social media communities, further exacerbating the spread of misinformation. The challenges of content moderation and platform responsibility have also been

highlighted. Guess et al. (2019) investigated how social media platforms handle misinformation and emphasized the platforms' difficulties in promptly identifying and removing false content. The study underscored the importance of platform accountability in curbing the spread of misinformation and fostering a healthier information ecosystem. However, Mahrt (2019) challenges this conclusion, arguing that the filter bubble effect is less strong than portrayed in the media and that users actively seek diverse viewpoints on social media platforms. Research shows that these platforms allow anyone to voice their opinions on any issue without expert knowledge. However, instead of building trust, this open sharing of information has heightened individuals' suspicions and deepened their distrust of health information. These conditions were especially harmful during the COVID-19 pandemic.

A Pew Research Center study (2021) analyzed data from a survey of social media users in the United States to determine how source credibility influenced their responses to COVID-19 misinformation. The study found that users were likelier to believe and share information from credible sources, such as official government accounts or health organizations. However, users who relied more on Facebook for COVID-19 information were less likely to believe and share information from credible sources than those who relied more on Twitter (Roozenbeek et al., 2020). These studies suggest that the credibility of COVID-19 health information on social media can vary depending on the platform and the source of information. Therefore, to promote credible sources of information on social media, particularly on platforms like Facebook, to prevent the spread of misinformation.

The Role of Social Media in Shaping Public Trust during Pandemics

Zhao et al. (2020) show that individuals' trust in media outlets such as Fox News and CNN impacts their willingness to take preventive measures against the novel coronavirus. Thus,

people with less trust in these media outlets are more likely to put themselves at risk. During past pandemics, the media, through newspaper and radio platforms, played a role in disseminating information and raising awareness among the public (Anwar et al., 2020). These broadcast media allowed health organizations and governments to share updates, guidelines, and preventive measures with a broad audience. Later, social media facilitated the rapid spread of news, allowing individuals to stay informed about the latest developments and take necessary precautions. We can see the impact of social media by placing it in the context of the role of media in each of four previous pandemics."

Spanish Flu- The 1918 Influenza Epidemic

During the early 20th century, the concept of public healthcare was nonexistent. Much of the populace lacked access to medical care, resulting in a dearth of comprehensive medical information. During that period, the public health challenges were mostly focused on densely populated industrial centers characterized by impoverished living circumstances. According to Daniels et al. (2016), there was a lack of public money allocated towards public health, resulting in minimal improvements in the health conditions of the working class. The extent of the disease—which caused widespread devastation across all socioeconomic strata and resulted in an extraordinary number of fatalities—was unforeseen by anyone.

Daniels et al. (2016) explain how, in 1917, during World War I, deeply involved the United States, President Woodrow Wilson was informed of the increasing prevalence of influenza among the men within his military forces. Rather than disseminating information about the hazards posed by influenza and implementing public health measures to safeguard both military personnel and the general population, the American government and its leader opted to withhold knowledge of the lethal virus due to concerns that such news would negatively impact

national morale. The individual employed the Espionage and Sedition Acts of 1917, legislative measures intended to regulate public sentiment and penalize those expressing dissent to suppress the dissemination of information regarding the proliferation of the virus. When the flu ravaged the population, they were unprepared for the disease's deadliness. In all, 25 million Americans were infected, and 500,000 perished from the disease, setting a record for death tolls caused by a disease. During this time, the country could only depend on organizations such as the American Red Cross and local authorities to help the sick population (Jones, 2010). The government's lack of a coordinated response further exacerbated the situation, leaving communities to fend for themselves. This experience highlighted the need for better public health infrastructure and preparedness measures for future pandemics.

Polio Outbreak - 1916–1955

The poliovirus, or polio, is a severely debilitating illness that primarily affects the nervous system and spreads through direct contact. Children are highly vulnerable to this infection and frequently experience the most severe consequences. The historical roots of polio may be traced back to ancient times since there is evidence of a virus like polio causing severe effects among individuals in ancient Egypt. The virus persisted throughout a millennium, but its impact on sizable populations was first observed after industrialization, which resulted in the proliferation of densely populated urban areas (Baker et al., 2022). The United States experienced recurrent outbreaks during the 1950s, with two polio outbreaks in 1916 and 1952. In 1952, 57,628 instances were documented, with 3,145 resulting in fatalities. The media also played an unprecedented role in the public discourse on polio vaccine safety. The media reflected the public's uncertainty towards the polio vaccine and the fear that polio’s effects brought to local neighborhoods. Newspapers also reported on the hundreds of thousands of volunteers who

wanted their children protected from the virus. After the polio vaccine was declared safe, the press expounded its virtues and contributed to the positive public perception of it.

Measles -1910s-1970s

Measles, also known as rubeola, is a highly contagious airborne virus that causes harm to the population. Symptoms include fever, runny nose, and sore throat, lasting 10-12 days. The virus can lead to ear infections, bronchitis, pneumonia, or encephalitis (brain swelling). While measles existed for centuries, outbreaks began in the early 20th century. In 1912, measles became a disease in the US that had to be reported to public health authorities by healthcare providers or laboratories, and around six thousand people died each year from measles-related complications. Measles was especially concerning, as it spread quickly among the younger population. The vaccine for measles was made available to the public in 1963, providing an effective weapon against the virus (Bugert, 2020). However, there was reluctance among many members of the population to vaccinate themselves or their children. The Jimmy Carter administration recognized that public relations played a key role in improving vaccination efforts. The government actively encouraged and funded TV ads featuring popular media characters from Star Wars to promote vaccination. More importantly, the newspapers were advised to reframe measles from an accepted and normal part of life to a dangerous and deadly disease that must be eradicated. These initiatives show the power of the media in influencing how the public views public health programs.

HIV and AIDS Epidemic - 1980s–Present

The human immunodeficiency virus (HIV) is a highly virulent pathogen that gradually weakens the immune system and spreads through contaminated blood, semen, or vaginal secretions. The primary modes of transmission are engaging in sexual intercourse without using

barrier methods and sharing needles during medication administration. Without medical intervention, the immune system would experience degradation, resulting in the onset of AIDS (acquired immunodeficiency syndrome), a persistent and perilous condition characterized by profound immunosuppression. The first instance of AIDS/HIV appeared in Africa and then spread to numerous developing countries worldwide. According to the Mayo Clinic (n.d), the virus's first known occurrence in the United States was in June 1981. During the first emergence of AIDS cases in the United States, the disease was notably concentrated within the LGBT population, which continued to face social marginalization within American culture. Newspaper and media sources frequently mentioned the illness called "gay pneumonia." However, they mostly focused on reporting the rising number of cases spreading across the country AIDS Crisis Timeline (2019). The increase in HIV/AIDS infections, reaching their peak in 1995, can be attributed to the absence of government involvement and biased media portrayals. After a therapeutic intervention was identified, many prominent individuals disclosed their affliction with the ailment. Media coverage experienced a notable rise; however, it was not until the latter part of the 1990s that both governmental entities and media establishments started efforts to inform the general population about the subject matter. The primary objective of these endeavors was to encourage individuals to undergo testing and receive appropriate medical attention, given the widespread availability of medicines for HIV/AIDS (Ayala et al., 2021).

COVID-19: 2020 – Present

The coronavirus, also known as COVID-19, is the latest disease that has surpassed many deadly epidemics of the past. It first appeared in December 2019 when clusters of patients with novel illnesses were reported in a seafood market in Wuhan, China. The virus spreads through airborne and surface transmission and can linger for days after transmission. The World Health

Organization declared it a pandemic in March 2020 after cases appeared as early as January 2020 in the US (CDC, 2021). Since then, the Centers for Disease Control and Protection have had to manage unprecedented conditions for the COVID-19 virus. The population was plunged into fear, with high mortality and rapid infection rates, while the economy floundered with restrictive social measures. Local and state governments had to address the logistics of keeping the population safe while minimizing the economic fallout from public health measures to limit person-to-person contact (Hyland-Wood et al., 2021).

The federal government's economic response to the pandemic has been massive, with laws such as the Coronavirus Aid, Relief, and Economic Security (CARES) Act offering the American public $2 trillion in quick and direct economic relief (Dzigbede et al., 2020). However, many public health experts thought the U.S. government's provision to the public of consistent information and a sense of security could have been much better. One main factor in the public's frustration with the government is the information overload the public receives from diverse sources, such as the executive branch of government and the media.

The spread of disinformation during the pandemic is a concern, especially the conspiracy theories surrounding the virus. This trend could lead to an increasing distrust in authority figures (Allington et al., 2020). False claims about the virus being a biological weapon or home remedies that could cure it were rampant online (Gerkin et al., 2021). Despite the government's efforts to counter such claims, the public remained skeptical. Politicizing public health issues, such as mask-wearing and vaccination, is another worrying trend. Republicans and Independents have expressed negative views on these measures, citing them as violating personal freedom (Bolsen & Palm, 2022). Government officials and politicians have also contributed to the

polarization of the public by sharing biased news stories during the pandemic. This has further eroded trust in authorities and made it difficult for people to discern the truth (Edelman, 2021).

COVID-19 Misinformation Spread and Evolved on Social Media Platforms

According to Pennycook et al. (2020), during the initial stages of the pandemic, social media platforms were flooded with misleading information and rumors about the virus's origin, transmission, and potential cures. Misleading content often included unverified claims, conspiracy theories, and false remedies. Due to the lack of moderation and oversight on these platforms, the unchecked dissemination of such inaccurate information led to confusion and panic among the public. Some scholarly work highlighted social media platforms' role in spreading COVID-19 misinformation (e.g., Brennen et al., 2020; Cinelli et al., 2020; Nielsen et al., 2020). The spread of viral conspiracy theories and misinformation during the COVID-19 pandemic has made it challenging to promote accurate information and control the outbreak. According to a study by Vosoughi et al. (2018), conspiracy theories like the "5G and COVID-19" conspiracy gained traction on social media platforms, falsely linking 5G technology to spreading the virus. The rapid dissemination of false information on social media created an echo chamber effect, where people accepted and reinforced baseless claims that agreed with their pre-determined perspectives, further contributing to public fear and confusion. This problem was exacerbated by the lack of reliable sources like fact-checking mechanisms on these platforms, allowing these theories to spread unchecked and undermining public trust in scientific evidence.

As Pennycook and Rand (2019) noted, high-profile individuals and influencers played a role in amplifying COVID-19 misinformation, leading to broader dissemination. Celebrities and public figures sometimes share unverified or false information, impacting their followers. Their large following and perceived credibility made their posts more influential, further confusing the

public and hindering efforts to promote accuracy. In addition, the rapid dissemination of information on social media platforms has been identified as a critical factor contributing to the spread of misinformation (Friggeri et al., 2014). Unverified claims and rumors can go viral within minutes, making it difficult for fact-checking organizations to catch and correct misinformation quickly. Social media platforms' lack of regulation and oversight allows misinformation to thrive and reach a broad audience without accountability or consequences.

Emergence and Growth of Fact-Checking Organizations

During its early stages, journalism took on different forms and had different objectives than today. The first group of journalists who performed duties as modern-day fact-checkers were known as muckrakers. These writers were American journalists who reported on large corporations' political and economic corruption. For instance, they verified and exposed false claims made by pharmaceutical companies about medical patents. Samuel Hopkins Adams and Upton Sinclair were some of the famous muckrakers who authored articles that revealed the unfair practices of these companies and paved the way for regulations that ensured consumer protection and reformed the American public health system (Cassedy, 1964). Thus, the modern practice of fact-checking as we know it today has its roots in twentieth-century America (Amazeen, 2020). According to Graves (2016), the modern fact-checking movement began during Ronald Reagan's candidacy in the 1981 presidential election. Reagan made several false statements that gained attention as a candidate, such as his famous claim that trees caused four times as much pollution as cars and industrial chimneys combined. He continued to refer to trees as a threat to the environment throughout and after the election campaign. Amazeen (2020) described that disinformation in the North American political scene started to gain more attention

in the 1990s, particularly during the 1998 North American presidential elections when George H. W. Bush was elected.

According to Ireton and Posetti (2018), fact-checking in journalism has two parts and be traced back to the 18th century when North American newsrooms employed "reviewers" to verify the accuracy of journalistic pieces before publication. These reviewers served as a second layer of fact verification for journalists, the first layer being…. In the 1920s, American weekly magazines such as TIME were the first to hire such professionals; however, many media organizations have had to cut down or eliminate internal fact-checking departments due to economic and financial challenges. For example, Factcheck.org launched in 2003, PolitiFact.com, and the Washington Post's Fact Checker in 2007. Before that, in 1994, Snopes.com was created as a non-political fact-checking website that investigated urban legends and myths and publicized fraudulent schemes. It still stands as the oldest and largest online fact-checker in the US. In healthcare, the fact-checking platform HealthNewsReview.org was born in 2004.

Fact-checking Organizations During the COVID-19 Pandemic

By providing accurate and reliable information, fact-checking organizations help to prevent the harmful effects of disinformation, such as panic, confusion, and mistrust in public health measures. Fact-checkers aim to provide accurate and quality information to assist citizens in making educated health decisions. To achieve this, they minimize citizens' exposure to false information and share their findings, research methodology, and ways of gathering evidence (Çömlekçi, 2022). Li and Chang. (2023), who discovered that fact-checking can be useful for refuting false claims. Fact-checking can take on various forms, including simple rebuttals directly refuting false claims with accurate information, factual elaboration providing additional

evidence and context, warning labels indicating that a post contains misinformation, and narrative correctives presenting alternative narratives or perspectives to counter false claims. This result aligns with a meta-analysis study by Van der Linden (2022), who examined the effectiveness of fact-checking in correcting misinformation. Their study found that fact-checking or debunking can effectively correct misinformation. This provides a valuable tool for combating false information on social media platforms.

During the COVID-19 pandemic, factCheck.org uses a rigorous methodology to determine the accuracy of political claims and statements made by politicians, interest groups, and other prominent figures in the public sphere. It is widely regarded as a reliable source of information and has been referenced by major news outlets and politicians alike. This organization meticulously examined scientific research and statements from experts to confirm that the virus did not originate in a lab or as a deliberate bioweapon, preventing unnecessary panic and fear among the public. FactCheck.org evaluated the accuracy of suspicious claims in the public domain. They share their results through their website with the public and guide the public with the correct information. They debunked false and misleading claims related to the virus. They fact-checked claims made by politicians, public figures, and media outlets about the virus's origins, its transmission, and potential treatments or cures. They also provided accurate information about the virus and its impact on public health and the economy.

For instance, organizations like Snopes and PolitiFact have fact-checked viral posts that spread misinformation about the COVID-19 pandemic, providing accurate information to counter the false claims. These fact-check sites have been widely shared and have helped correct misinformation and prevent its spread. This demonstrates fact-checking organizations' contribution to ensuring accurate information is accessible to the public, according to research

conducted by Porter and Wood (2020). Implementing fact-checking mechanisms on social media platforms reduced the sharing of false information. Similarly, Yaqub et al. (2020) found that social media users exposed to fact-checking labels were more likely to evaluate the information they encountered and less likely to share false headlines. These findings highlight the potential impact of fact-checking in combating misinformation on social media platforms. Fact-checking can effectively fulfill its core aim of ensuring a well-informed public. It is a tool for online platforms, especially since social media has become a key venue for keeping people informed and engaged with current events. Kertscher (2021).

FactCheck.org collaborated with other fact-checking organizations to create a COVID-19 Fact-Checking Alliance to combat misinformation related to the pandemic. Several scholars have examined the role of fact-checking organizations during the COVID-19 pandemic. Vraga and Bode (2022) found that fact-checking organizations like FactCheck.org were essential in correcting false and misleading information about the pandemic and increasing public knowledge about the virus. Their article argues that fact-checkers have adapted their methods and strategies to address the unique challenges posed by the pandemic, such as the rapid pace of current information and the politicization of specific topics related to the virus.

Changes in the nature of fact-checking have changed today's "post-truth" media environment. Initially, fact-checking was primarily associated with journalism, which became more professional in the 20th century and evolved into a "fact-centered discipline" (Graves & Amazeen, 2019, p. 3). However, fact-checking has grown into a more complex system with many people and groups, routines and practices, principles, and tools all working together to reach the same goal: "helping people get better information and encouraging fact-based public discourse" (Graves & Amazeen, 2019, p. 1).

Media and health organizations have begun implementing several measures beyond fact-checking to help people resist misinformation. Research has shown that prompting individuals to consider the accuracy of the information they encounter helps them to become more likely to discern between truth and falsehood and make more informed decisions about what to share on social media. This technique can be integrated into various channels, such as social media platforms or public health messages, to encourage people to be more deliberate when consuming and sharing content. One example is a pop-up message reminding users to fact-check information before sharing it. Moreover, healthcare providers can be more active in educating patients about COVID-19 misinformation by leveraging their relationships with patients. Highlighting the motivations behind disinformation agents, including financial or political gain, can also help reduce the impact of misinformation. A similar approach was successful in the "truth" campaign, which exposed the tobacco industry's deceitful practices. Likewise, exposing the tactics used to spread misinformation, such as flawed reasoning, can foster a healthy dose of skepticism towards such content.

Different Fact-Checking Strategies

The effectiveness of these strategies will vary and can be influenced by factors such as the nature of the misinformation, the context in which it is spread, and the technological and human resources available for fact-checking efforts. Specifically, several different approaches to fact-checking have emerged.

Automated Fact-Checking

Zeng et al. (2021) explain that automated fact-checking relies on natural language processing (NLP) and machine learning, and sometimes text, images, and videos can be used to evaluate the truthfulness of claims. This strategy aims to scale the fact-checking process to keep

pace with the rapid dissemination of information online. Automated systems can quickly sift through vast amounts of data to identify potentially false claims and verify them against trusted sources or databases. However, the effectiveness of automated fact-checking is mixed (Zeng et al.). While it excels at handling structured claims and facts that can be directly verified against databases, it struggles with nuanced or context-dependent claims. Additionally, the sophistication of misinformation techniques may outpace the current capabilities of automated systems, leading to false negatives or positives.

Human-centered Fact-Checking

Human fact-checkers employ critical thinking, deep research, and cross-referencing against credible sources to evaluate claims (Das et al., 2023). This approach benefits from human intuition and the ability to understand context, satire, and subtlety, which are challenging for automated systems. However, human fact-checking is resource-intensive and cannot match the speed with which misinformation spreads online. Human information fact checks are thorough but slow, may miss nuanced information, and are limited in the number of claims they can process.

Crowdsourced Fact-Checking

According to Barbier et al. (2012), crowdsourcing leverages the collective intelligence of many people, often volunteers or community members, to identify and verify the information. Platforms like Wikipedia and certain fact-checking websites use this approach to pool knowledge and resources. The effectiveness of crowdsourced fact-checking can be high, especially in environments where participants are well-informed and engaged. However, it faces challenges such as vulnerability to bias, the potential for coordinated misinformation campaigns, and varying levels of expertise among participants.

Mixed-Methods Fact-Checking

Some fact-checking initiatives combine automated tools with human verification, aiming to leverage the strengths of both approaches. This hybrid strategy can enhance the speed and accuracy of fact-checking efforts but requires significant coordination and resources to implement effectively. The mixed effectiveness of this approach hinges on the balance and integration of automated and human elements. The success of fact-checking initiatives depends on debunking misinformation while maintaining high credibility quickly and accurately. Finding the right combination of automated tools and human oversight is crucial to achieving this balance. This balance ensures that fact-checking efforts are efficient and reliable, ultimately helping to combat the spread of misinformation on time. Additionally, continuous monitoring and adaptation of the hybrid strategy is essential to keep up with the evolving landscape of online misinformation.

Public Trust

Public trust is a complex phenomenon influenced by several factors, such as the media, government, experts, and social networks. Studies have emphasized the importance of these factors in shaping individuals' perceptions of the credibility and reliability of information sources (Cvetkovich & Löfstedt, 1999; Sturgis et al., 2018). According to Luhmann (1989), trust is a mechanism for reducing complexity. Trust is critical in decision-making scenarios where individuals lack the knowledge to make informed decisions (Siegrist & Cvetkovich, 2000). Despite the absence of a universally accepted definition, trust is widely regarded as an inherent aspect of all human relationships and a foundation for social order (Kramer & Tyler, 1996; Mechanic, 1996). Trust is defined as the "expectation that arises within a community of regular, honest, and cooperative behavior, based on commonly shared norms" (Fukuyama, 1995, p. 26),

the "confident, positive expectations regarding another's conduct" (Lewicki et al., 1998, p. 439), or the "willingness to be vulnerable" (Mayer et al., 1995, p. 724). Trust plays a vital role in shaping social behaviors. Trust in information sources leads to informed decisions, constructive dialogue, and participation in democratic processes (Flanagin & Metzger, 2014). Conversely, a decline in public trust can lead to polarization, misinformation, and a breakdown in social cohesion (Flanagin & Metzger, 2014). Therefore, it is essential to prioritize accuracy, transparency, and reliability in the information shared through social networks and online platforms to maintain and strengthen public trust (Flanagin & Metzger, 2014).

Trust is necessary, mainly when there are public misconceptions or knowledge gaps around a public topic like vaccination. Results of a Swiss survey that measured the general population's knowledge of vaccination showed that many respondents answered "do not know" to many questions (Zingg & Siegrist, 2012). Moreover, the general population needed to gain more knowledge and had many misconceptions about vaccination. Thus, most laypeople found studies on the benefits of vaccinations or essential concepts such as herd immunity challenging to understand. People with little subjective knowledge (i.e., low level of knowledge and low level of firmly held misconceptions) relied on experts to evaluate various measures against pandemics, as has been shown to have occurred during the SARS epidemic (Deurenberg-Yap et al., 2005). Combating the spread of false information has become a defining issue of our time. In recent years, trust has been lost in institutions such as the media, government, education, and health organizations. This loss of trust has contributed to widespread susceptibility to false information, as Humprecht et al. 2020 and Swire-Thompson & Lazer 2020 noted. Additionally, factors such as polarization, populism, fragmentation, shifts towards online advertising, and the decline of local journalism have created an environment that is conducive to what has been

termed "information pollution" (Humprecht et al., 2020; Wardle & Derakhshan, 2017). During times of crisis, particularly health-related crises, trust becomes an essential component as it helps the public deal with prominent levels of uncertainty, risk, and vulnerability. Public trust in sources of information during health crises can impact people's attitudes and behavioral responses (Quin et al., 2013; Vardavas et al., 2021; van der Weerd et al., 2011; Wong & Sam, 2010). For example, studies conducted during the A/H1N1 influenza pandemic in the Netherlands (van der Weerd et al., 2011) and the USA (Freimuth et al., 2013) examined the relationship between trust in government, risk perception, and willingness to follow protective measures. Additionally, greater trust in the government in the Netherlands was linked with stronger intentions to obtain vaccination and comply with protective measures.

Vardavas et al. (2021), writing on the COVID-19 pandemic in G7 countries, found that individuals who relied on the government or politicians, as well as friends or family, for their information were more likely to trust the measures taken by the authorities. Conversely, the researchers found low trust in government in the USA, which resulted in a low vaccination rate. This highlights the importance of reliable information sources and trust in government actions in promoting positive health outcomes during a pandemic. De Zwart et al. (2009) observed that during the SARS pandemic, individuals of Chinese ethnicity in the UK and the Netherlands relied on family and friends as their primary source of information, followed by the Chinese media. Conversely, respondents from British and Dutch backgrounds cited newspapers as their primary sources of information. Strömbäck et al. (2020) claim that news media trust is "fragile." However, in the context of pandemics, traditional and new media have been consistently found to be among the most common and trusted sources of information. As Hameleers (2020, p. 284) points out, there are no journalistic gatekeepers in social media, and unfiltered information,

including falsehoods, can easily be spread by many actors. The credibility of sources also plays a vital role in how individuals engage with social media; people are more likely to trust content shared by members of their social media group (Shareef et al., 2019) and articles endorsed by trusted public figures (Sterrett et al., 2019). This notion is consistent with past epidemics such as the Ebola outbreak in West Africa in 2014-2016 (Blair et al., 2017; Morse et al., 2016) or the SARS, avian influenza, and H1N1 pandemics (Siegrist & Zingg, 2014), which demonstrated that trust in government ensures effective public health responses. Countries with higher levels of trust in their governments could implement and enforce necessary measures more effectively, ultimately controlling the spread of the diseases. These findings underscore the importance of trust in the government in achieving successful public health outcomes. While trust in the government is a factor in compliance with health policies, it is not the only determining factor. Understanding how individuals seek and trust COVID-19 information is crucial to developing helpful strategies to effectively disseminate accurate and reliable information during public health crises.

Socio-cultural Factors Affecting Trust During the Covid-19 Pandemic

Jones et al. (2021) examined the impact of ethnicity on information-seeking behavior during the COVID-19 pandemic. Their study found that individuals from ethnic minority backgrounds were more likely to rely on social media for information compared to their counterparts from White ethnic backgrounds. This suggests that public health communication strategies should consider the different information sources preferred by individuals from different ethnic backgrounds to ensure that accurate information is disseminated effectively to all population segments. Furthermore, Ni et al. (2020) explored the information-seeking behavior of individuals with pre-existing medical conditions during the COVID-19 pandemic. They found

that individuals with chronic conditions were more likely to seek information from healthcare professionals and reliable online sources. Public health communication strategies should also consider the specific information needs of individuals with chronic conditions to ensure that accurate and relevant information reaches them. A study by Smith et al. (2020) found that older individuals were more likely to rely on traditional media sources such as television and newspapers, while younger individuals turned to online platforms and mobile applications for information. This finding highlights the importance of considering demographic factors when designing public health communication strategies to ensure that information reaches all population segments effectively. These studies provide valuable insights into the information-seeking behavior of different demographic groups during the COVID-19 pandemic. The findings of these studies have implications for public health communication strategies during the pandemic.

The following studies are summarized to shed light on the factors influencing people's decision not to be vaccinated, including trust in the vaccine industry and government bodies. However, the studies do not show whether trust varies depending on nationality. During the 2009/10 H1N1 influenza pandemic in Germany, the vaccine uptake remained low despite the vaccine's high effectiveness, as revealed by surveys conducted by Walter et al. (2011). The study found that fear of adverse effects and the perception of insufficient testing were reasons for people's decision not to be vaccinated. Larson et al. (2011) argued that trust is a factor in vaccination decisions and that vaccine hesitancy is often linked to a lack of trust in the safety and effectiveness of vaccines. Similarly, Dubé et al. (2013) identified trust as one of the key factors influencing vaccine acceptance. These studies recommended that vaccine policymakers and healthcare providers focus on building public trust to increase vaccine uptake during pandemics.

According to a study by Betsch et al. (2015), cultural norms, socioeconomic conditions, and individual beliefs also shape public behavior during epidemics. In addition, conflicting information from other sources can also influence individuals' decisions to comply with health policies, even if they trust government institutions (Carpenter et al., 2016). Considering these counterarguments and taking a more nuanced approach when examining the relationship between trust in government and adherence to public health measures. By doing so, we can better understand how to promote compliance with health policies and mitigate the impact of epidemics on public health.

Conclusion

The academic community has extensively studied the impact of misinformation on social media platforms during pandemics, with several scholarly works highlighting its major influence on public perceptions, behaviors, and health outcomes (Pennycook & Rand, 2021; Lazer et al., 2018; Bessi & Ferrara, 2016). Moreover, scholarly research has explored the role of fact-checking organizations in mitigating the spread of false information, indicating their potential effectiveness in correcting misinformation (Guess et al., 2020). Additionally, academics have examined the dynamics of public trust in information sources, including social media, government agencies, and experts, emphasizing the numerous factors that impact individuals' trust (Edelman et al., 2011; Allcott & Gentzkow, 2017). Despite this extensive research on social media fact-checking during pandemics, there are still areas of knowledge deficiency and unresolved questions. For instance, a study by Kouzy et al. (2020) found that most COVID-19-related posts on social media contained misinformation. Elsewhere, in a recent study, Pennycook et al. (2020) showed that people who are more analytical and reflective are less likely to believe fake news than those who are intuitive and impulsive. However, it is unclear how this knowledge

can be used to enhance the impact of fact-checking initiatives. Therefore, further research is needed to investigate this issue.

In the present study, I seek to add to the current literature surrounding the complex dynamics of fact-checking and public trust during pandemics by investigating the effects of false information on people's beliefs and actions. By examining and synthesizing existing scholarly work on the subject, I hope to contribute to developing effective interventions that can enhance the impact of fact-checking initiatives and reduce the spread of misinformation on social media platforms. By understanding the factors that impact how people fact-check and make corrections, fact-checking organizations and social media platforms can tailor their interventions to be more effective. For example, suppose research reveals that individuals are more likely to accept corrections from sources they perceive as trustworthy. In that case, fact-checkers can work on building trust with their audience and leveraging credible sources to enhance the impact of their corrections. Additionally, understanding the cognitive biases and psychological factors that affect how people process information can help design fact-checking interventions that are more persuasive and memorable, increasing their likelihood of being accepted and internalized by the audience. Research could investigate the effectiveness of warning labels in influencing user behavior and reducing the sharing of false information. Another intervention that could be explored is using nudges, such as pop-up messages encouraging users to think about the information they will share. The argument becomes more tangible and relatable by providing specific examples of interventions.

In conclusion, the literature review has highlighted the prevalence and impact of misinformation during pandemics, the role of social media platforms in its propagation, the emergence and growth of fact-checking organizations, and studies on public trust in information

sources. However, there are still gaps in the current literature. My research aims to contribute to the field of public health by providing a more nuanced understanding of the complex dynamics surrounding fact-checking and public trust during pandemics. By examining and synthesizing existing scholarly work on the subject, I hope to inform evidence-based strategies for mitigating the spread of false information and fostering trust in credible sources during public health crises. This research is particularly important in the current climate, where misinformation and rumors can spread rapidly through social media and other channels, potentially exacerbating public health crises.

CHAPTER III: METHODS

This study will employ a mixed method of open-ended questionnaires and interviews to answer the research questions, incorporating snowball and network sampling methods. The qualitative method used in this study aims to provide detailed information on participants' thoughts and perspectives regarding the influence of these platforms on public trust during the pandemic and fact-checking. The following section describes how this study was conducted and how it attempted to address each research question. Included here is a description of the respondents who participated in the online survey, followed by the procedures for creating the survey and thematically analyzing the open-ended questions.

Data Collection

Eligibility Confirmation and Demographic Information Survey

Before the interview, all potential interviewees must complete a brief demographic survey (see Appendix A). The survey begins with a list of the four eligibility requirements to confirm that participants meet the criteria. It is then followed by ten demographic questions, including age, gender, race or ethnicity, education level, political orientation, etc. These questions will help gather information about the participants' backgrounds.

Interviews

I conducted in-depth interviews with 9 participants. The semi-structured format allowed for flexibility in exploring various aspects of the participants' experiences while maintaining a consistent comparison framework. Additionally, narrative performances allowed participants to share their stories more personally and engagingly, providing rich insights into information verification during the COVID crisis. Specifically, I conducted narrative interviews. Tracy (2013) defines narrative interviews as a qualitative research method where the interviewer

encourages the participant to tell their personal story or experiences in a free-flowing and uninterrupted manner. According to Riessman (2008), narrative interviewing expands on traditional interviewing because it privileges two active conversationalists' “opening up” of topics. This approach allows a deeper exploration of the participant's experiences and perspectives beyond surface-level responses. By incorporating narrative performances, the participants could explore the actions and thought processes behind their information verification strategies during the COVID crisis. To this end, I encouraged participants to share specific examples or anecdotes related to their information verification experiences, which added richness and context to their responses.

During the interviews, I asked easily understandable questions like "How often did you fact-check information before sharing it with others?" and "What sources did you rely on the most for accurate information?" These questions provided concrete data that could be analyzed and compared across participants, allowing for a more comprehensive understanding of the information verification strategies employed during the COVID crisis. After providing the participants with the final opportunity to add anything else they wished to share about their experiences with information verification during the COVID crisis, I concluded the interview by expressing gratitude for their valuable insights and contributions. I encouraged them to contact me with further questions or concerns.

Data Collection

The interviews (see Appendix C) were audio-recorded to ensure accurate data collection and analysis. The interview was conducted on zoom and lasted for about 40 minutes.

Data Analysis

Interview Transcription and Data Management

During the interviews, I recorded audio using my computer as the primary source and my phone as a backup. Depending on the participants ' location, I used the recording function or Zoom. After the interviews, I will use Zoom transcription to generate an initial audio transcription, which will then be manually edited to ensure accuracy. This step is essential because it helps me familiarize myself with the data, a crucial part of thematic analysis (Braun & Clark, 2006).

As I transcribe the audio recordings, I will carefully document any mentions or discussions about trust in social media and fact-checking organizations. This will help me identify why participants either trust or distrust these sources. Furthermore, I will also pay attention to any personal experiences or anecdotes the participants share that may shed light on their trust-related perceptions. I ensured the confidentiality of all my participants by replacing their real names with pseudonyms and removing other identifying information, such as dates and locations. All audio and transcript files were stored on a device that required a password for access, and once the transcripts were completed, the audio files were permanently deleted.

Thematic Analysis

Following the method described by Braun and Clark (2006), two separate thematic analyses were conducted to answer the research questions. The first analysis aimed to identify themes related to the research question, like trust and whether someone's mind was changed by fact-checking. The second analysis aimed to explore any additional themes that may have emerged. Similar codes for each research question were then grouped to form potential themes per step three of the thematic analysis process (Braun & Clarke, 2006). Once the themes were

solidified and exclusive, they were named, and exemplars were chosen to represent each theme. The findings from the analysis will be presented below. Referential adequacy and internal member checks (Lincoln & Guba, 1985) helped validate the thematic development.

CHAPTER IV: RESULTS

Thematic analysis (Braun & Clarke, 2006) and Owen's (1984) principles of recurrence, repetition, and forcefulness were used to analyze the 9 interviews and 144 responses to the open-ended questionnaire collected for this thesis. The focus of the analysis was to report participants' responses on the influence of social media platforms and fact-checking organizations on public trust during the COVID-19 crisis. The analysis was structured to answer three key research questions: How do users' perceptions of COVID-19 health recommendations change after using a fact-checking organization? What factors influence individuals' openness to accepting fact-checks during the COVID-19 pandemic, and how users' trust in social media affects an individual's susceptibility to COVID-19 information? Three overarching themes were developed: user perceptions, individual openness, and user trust, each linked to a research question. From these themes, a total of fourteen sub-themes were created. The following sections will discuss each theme and the respective sub-themes for each research question, focusing on the study's main objectives.

RQ1: User Perceptions

This theme addresses the question posed by RQ1, which concerns how users' perceptions of COVID-19 health recommendations changed after using a fact-checking organization (i.e., how the exposure to fact-checking information impacted their beliefs and behaviors regarding health guidelines). To address RQ1, initial coding was conducted to identify ideas within participants' responses that answered RQ. In that initial coding, instances in which initial misinformation beliefs changed when encountered with contradictory information and information accessibility and clarity were also identified. For an idea to qualify as a coded category, it had to represent a key fact-checking experience, idea, or perception of

misinformation. From this initial coding, categories included ideas about the effectiveness of the fact-checking organization, trust in the source of information, the influence of misinformation on personal health practices, and changes in attitude towards COVID-19 health information. These categories helped structure a deeper analysis of how different types of exposure to fact-checked content could shift public opinions and behaviors. Out of 15 categories, patterns were identified, and five sub-themes were created.

Experience with Misinformation

In discussing their experiences with misinformation, participants reported that they encountered significant misinformation regarding the severity and transmission of COVID-19. A lot of the misinformation was from general experiences, media influence, and vaccine and treatment misconceptions. One interviewee described misconceptions about reported COVID deaths as follows:

> I feel like the biggest misconception that I saw during COVID-19 was the number of deaths on the actual news on TV. They just kept talking about how many people were dying and how it was deadly, and I feel that was the most hazardous thing that has ever happened to anyone. Also, I feel like there is a major misconception that everyone was going to die from it versus who was dying from it. (Mark L23)

This response highlights the impact of misinformation on public perceptions. Although the previous comment generally reflects the views of most of the participants, one participant indicated that a friend on Facebook posted something claiming that if schools remained open, a certain amount of COVID-19- infections would occur among the students, which would result in a certain number of deaths. However, Whitney, an adjunct teacher, did his research through the CDC and corrected his friend by posting a response on Facebook, explaining that leaving the

schools open would not result in high deaths. Although not focused on the death toll alone, some participants also experienced misinformation about disinfecting groceries:

> Well, something that my wife and I did early on was get our groceries delivered. We know that if we didn't want to go to grocery stores. We didn't want to go into contact with people early in the pandemic. When we get our groceries, we wipe them down with disinfectant, and you know, we did that for probably a couple of months. And then, you know, it finally came out that you don't need to do that, that you're not going to die. And so, it was a slow process. But you know, after I realized that we didn't have to do that, it affected many things because we were constantly wiping down our counters' handles. (John L30)

Another participant mentioned that they found themselves gargling salt water several times a day for quite a while until they realized it was ridiculous. Participants stated that misinformation came mostly because diverse political perspectives divided the country, with each person supporting or following what their political party supported. Two participants talked about COVID-19 prevention tablet misinformation:

> My friend's dad wanted to get the horse pill version of this medicine [ivermectin]. I don't know, but it was so apparent to me that I had seen this in a Facebook post. And then I saw people trying to smuggle this into the hospital; it just blew my mind. (Kitty L33)

When asked how the hospital discovered the smuggled ivermectin, the participants said a charge nurse checked their bag before they visited a patient in the hospital and recognized that they were trying to sneak in capsules of the same substance. Some participants also stated that mask-wearing was another primary source of confusion. The constantly updating guidelines about mask efficacy, fabric types, and appropriate usage led to conflict and incorrect information.

Participants noted that initial advice suggesting any mask was effective and later evolved into more specific recommendations, highlighting the effectiveness of medical-grade masks over homemade or fabric ones.

These opinions reflect the importance of disseminating accurate information during a global health crisis. The experiences shared by the participants reveal a multi-faceted problem involving media exaggeration, social media misinformation, and the influence of political biases on public perception and behaviors. These issues were exacerbated by the rapid evolution of scientific understanding regarding COVID-19, which necessitated frequent updates to health guidelines that often lagged the spread of misinformation.

Initial Misinformation Belief

Participants' responses to initial misinformation beliefs varied significantly, reflecting the broad perception of misconceptions prevalent during the early stages of the COVID-19 pandemic. Mark, a student, pointed out details regarding vaccine efficacy and safety as misinformation that many people initially believed would completely prevent COVID-19 infection.

> I mean, there was a lot. However, I remember with the vaccine announcement, they talked about how you couldn't get COVID-19 with the vaccine. And then, when I went back to school, I had a professor who worked for Pfizer, I want to say. He was during the pandemic's peak before becoming a professor; he explained that you still can get COVID-19. You just won't be spreading it. And I feel like, after that, I just stopped trusting the news and the statistics. (Mark L32)

For other participants, at the beginning of the pandemic, there was confusion about the effectiveness of masks. Participants recounted that early advice was often simplistic and not

based on solid research, suggesting that any kind of mask, including homemade fabric masks, would be beneficial. One respondent had this to say:

> Early on, I saw something that said that any mask would work and that you could just put a mask on as long as it was over your mouth. Everything was okay, and then they came out with first, you needed to have it over your nose also, and it couldn't just be a mask just made out of regular cloth, you know like you'd have a scarf or something you needed to get, and that had some protection like a mask. (John L37)

The reporting organization had to correct this misinformation as more research indicated the superiority of medical-grade masks for protection against virus transmission. Sharing her thoughts on COVID-19 treatment misconceptions, Kitty stated that there were also widespread initial misconceptions about hand washing as an effective treatment for COVID-19. Some participants believed that basic hygiene practices like hand washing were sufficient to prevent infection, overlooking other crucial measures like social distancing and proper mask use. Kitty had this to say:

> This was before it was even in the US. There may have been one case, like the first one in New York, or something I cannot remember. I do not remember where the first case was. However, it was right about that time and about March seventeenth, or Saint Patrick's Day here, because I remember being out with a friend, and someone said something about COVID-19. I said, “We will just wash our hands like we don't know anything about it. It is a virus. Wash your hands,” and then, little did I know, or I guess anyone knows, it's good to do. But it's not going to save you from COVID. I feel like that was early on and going around a lot. (Kitty L68)

These initial beliefs significantly impacted how individuals responded to evolving public health guidelines. When initial expectations—such as the complete prevention of infection by vaccines or the efficacy of any mask—were unmet, it led to skepticism toward further information. This skepticism was compounded by the rapid evolution of scientific understanding and public health recommendations, which must be communicated more effectively to maintain public trust and compliance.

Encounter with Contradictory Information

Although respondents' responses to contradictory information about COVID-19 varied, the overarching theme was frustration and sometimes profound disappointment, which was grouped into emotional and physical reactions. When participants encountered information contradicting their initial beliefs or the misinformation they had been exposed to, their emotional responses were intense. Many felt betrayed or misled by sources they had previously trusted. For instance, one participant noted:

> I honestly felt insulted and offended. I believe the exaggerated death—that information, you know—had a significant effect on everybody, like everybody and everything. And just the fact that I believed it, I kind of felt disappointed in myself. But how are you supposed to know if you don't have any accurate news sources? But I think the main feelings I had were disappointment and frustration that it happened in the first place. (Mark L77)

Anger was a frequent response, particularly directed at the sources of online misinformation. John had this to say:

> I was angry. It was a daily fight not to get angry at some of the things you saw online because people were dying. I mean, this isn't, you know, like catching a common cold, or,

> you know, just something that's an inconvenience. I mean, people were dying, and it just made me angry that I would see people who were just one day they'd be out there just yelling to the rooftops that this was a hoax, and in a week, they would be dead. You know, because they didn't take any precautions, and they didn't listen to science. And it's just that it's all political. And I wish politics would not have been involved in all of this, and we could have just gotten straight to the information. It never used to be like this. If something like this were to happen, you would have. I mean. You would have information out there that you could access. Everybody would try to help one another, and it was not like that this time. It was just a big fight over whether Covid was a hoax, and it was so ridiculous. And so, I got angry a lot of the time. (John L50)

The perception that political agendas were prioritized over public health exacerbated participants' anger. The physical manifestations of this anger included increased stress, anxiety, and, in some cases, actions taken out of frustration, such as aggressive social media posts or confrontations in public settings about misinformation.

Information Accessibility and Clarity

Participants' responses highlighted several critical issues that limited information accessibility and clarity during the COVID-19 pandemic. Participants widely reported difficulties in accessing clear and reliable information. The rapid evolution of knowledge about the virus and conflicting reports from various sources created a confusing information environment. Many felt overwhelmed by the volume of data and the lack of direct communication from authoritative sources, such as vaccine manufacturers and health organizations. One interviewee had this to say about information accessibility and clarity:

> It was hard for people to understand how vaccines can provide benefits, and that was not always explained well by the government or the authorities who should be most trustworthy. Explanation, such as how some vaccines prevent you from being infected or developing the disease even if you are infected, or how some vaccines, like the COVID-19 vaccine, prevent your disease from being severe, even if you contract the disease. (Kenny L44)

Other problems include media accuracy, noting that sensationalism often overtook factual reporting. This spread fear and misinformation and undermined trust in essential public health messages. Participants expressed frustration with media outlets prioritizing catchy headlines over detailed, accurate reporting. Another concern raised was the information accessibility for vulnerable populations, including the homeless and those with limited education. These groups often lack access to digital platforms where much of the information is disseminated and face additional barriers, such as language and literacy, that hinder their understanding of the available information. Furthermore, education level was another key factor that influenced information accessibility. Participants noted that much of the public health information assumed a certain level of prior knowledge or education, which is not universally available. This made it challenging for individuals without a health or science background to understand the pandemic's implications and the necessary precautions.

Sources of Misinformation Spread

The findings from the participants' responses illustrate that misinformation is not confined to any single source but permeates diverse and familiar channels, increasing the challenges of managing the pandemic effectively. One notable instance involved a participant whose grandmother, influenced by her political beliefs, erroneously asserted that receiving the

COVID-19 vaccine could be fatal. This instance highlights how deeply held beliefs within family settings can become potent sources of misinformation, complicating efforts to promote public health measures. The role of social media in spreading misinformation was prominently featured in the responses. Participants noted specific instances where friends shared biased or false information about the pandemic, including incorrect details about school closures and the virus.

Responses to Misinformation

The frustration and helplessness felt by respondents led to them taking decisive actions such as unfriending or hiding posts from these individuals on social platforms like Facebook. Participants took this action to mitigate the emotional and cognitive toll of constant exposure to misinformation. Misinformation was also spread through more casual, everyday interactions, such as neighbors offering unsolicited health advice. A participant recounted how a neighbor recommended daily vitamin C and zinc intake as a preventive measure against COVID-19 without grounding this advice in scientific evidence. Such recommendations, while well-intentioned, reflect a broader trend of non-experts propagating health advice that may be baseless and potentially harmful. These findings show the delicate nature of misinformation sources during the COVID-19 pandemic. Family members, friends, and neighbors emerged as conduits of misinformation, demonstrating that misinformation spread is deeply embedded in social interactions and networks. This proliferation complicates public health responses and highlights the need for targeted communication strategies to reach effectively and correct misconceptions within these close-knit networks.

RQ2: Individual Openness

Research question two focused on determining individuals' willingness to consider and possibly accept information from a fact-checking organization. It sought to understand how

various factors, such as trust in sources, skepticism towards misinformation, and personal or community beliefs, influence individual openness. Categories in this area also covered ideas about the effects of misinformation on public opinion and personal behavior.

Role of Fact-Checking Organizations

Participants pointed out several factors, including political division, which led to diverse perspectives due to varied information sources. Participants agreed that everyone talked about different things and had different perspectives because they all sought and received different health information. In discussing increased trust, most participants agreed they placed higher trust in reliable organizations and sometimes drew information from multiple reliable sources. In her response, Clare had this to say:

> I generally went to the CDC website If I wanted actual factual information. I found that it depends on what politician or news outlet was reporting. Sometimes, they would say something different than the Center for Disease Control said. For instance, when could you leave your house if you got COVID? The CDC would often say one thing, and perhaps a government organization or a colleague in college I was working in would tell a different thing. (Clare L17)

Indeed, the CDC, as a recognized health authority, serves as a benchmark for Clare and many participants in verifying the accuracy of information. This indicates that institutions with established credibility and a track record of reliable reporting are crucial in times of crisis. Other sites that participants visited include the World Health Organization and Snopes. Quite a number of the participants agreed they have no trust in Facebook information, and nothing they saw increased their trust in the information available. However, this might be a bias due to the college-educated sample and that other low-trust (and right-wing) individuals might not trust

traditional scientific/bureaucratic organizations like the CDC and WHO. One participant also said that fact-checks also helped them make better judgments. These responses show that fact-checking organizations are helpful in guiding public perception and decision-making. The distrust in information disseminated through social media platforms like Facebook points to a broader credibility issue. This skepticism also emphasizes the role of fact-checking organizations in combating misinformation and ensuring that the public has access to accurate data.

Information Hesitancy or Acceptance

To discuss information hesitancy and acceptance, participants' responses were divided into two segments: hesitancy and acceptance. In this case, hesitancy refers to the reluctance or refusal to accept information as valid or true, often influenced by doubts about the source's credibility or perceived biases, or the content's alignment with one's pre-existing beliefs. On the other hand, acceptance involves the willingness to trust and integrate information based on its perceived authenticity, the source's reliability, or its corroboration by respected authorities or peers. In discussing hesitancy, participants agreed that they distrusted television news due to perceived bias. Participants said they stopped watching the news on TV because it sounded opinionated and seemed less factual. Lucy had this to say:

> With bleach misinformation or something, I was very hesitant because you are always careful to handle bleach with gloves, and some of them were so far out that we didn't even consider them. (Lucy L26)

Certainly, this shows that the hesitancy stems from concerns over the potential risks associated with poorly sourced or extreme claims, particularly those circulating on social media or less credible platforms. Some participants doubted the safety and efficacy of the vaccine when

it started coming out; they felt it had not been sufficiently tested and would be ineffective. Kitty had this to say:

> I think politics drove the vaccine, and politics drove animosity related to the vaccine. I think there were a lot of people who refused to get the vaccine or threw a fit about it. Also, many people have religious exemptions from it, and I'm not talking about those people. But I think there was a lot of mistrust about the vaccine's efficacy. You know, “the government's trying to poison us all”—all that thought. (Kitty L91)

Kitty's perspective illustrates another dimension of hesitancy that intertwines political views, mistrust in government intentions, and skepticism towards rapid vaccine development. Her comments reflect broader societal concerns that complicate public health responses, especially during crises such as the COVID-19 pandemic. The mention of concerns like "the government trying to poison us" points to the influence of conspiracy theories in shaping public opinion about health measures. These theories can dramatically heighten hesitancy and resistance, undermining efforts to promote public health. In discussing acceptance, participants strongly preferred information that has been fact-checked and endorsed by respected individuals or authorities, such as the CDC. This reliance on authoritative sources is crucial in establishing trust and ensuring accurate and reliable information. Most participants agreed they are more likely to accept information presented with clear, factual backing rather than speculative or opinion-based content.

> Because of my background, I'm very factual about viral processes. I wanted to be very factual—not even homeopathic, not anything else. I just wanted to be medically cut and dry, black and white, and factual about the information I received. (Kitty L79)

This emphasizes the role of credibility and authoritative endorsement in shaping public acceptance of information, especially in matters related to health. Participants' preference for rigorously fact-checked data reflects a broader desire for clear and definitive guidance during times of uncertainty.

Factors that influenced people to take or not take the vaccine

Participants pointed out factors influencing individual decisions to accept or reject the COVID-19 vaccine. These factors reveal that some decisions are not solely based on individual preferences but are shaped by various socio-cultural and informational influences.

Religious beliefs play a role in shaping attitudes towards vaccination. For some participants, religious doctrines and community norms within their faith groups greatly influenced their openness or hesitancy toward accepting the vaccine. This underscores the intersection of health decisions with spiritual and ethical values. Political affiliations also impacted how information was received and trusted, with participants indicating that their political leanings influenced which news sources they considered credible. This polarization suggests that people's decision to take the vaccine was not merely a medical decision but was also viewed through the lens of political identity and loyalty.

Personal relationships and mentorship emerged as another factor shaping responses to the vaccine. John highlighted the influence of a mentor who contracted COVID-19, which affected his perception of the virus's severity and the urgency of vaccination.

> My best friend, who was also my mentor when I first started teaching at (-------), was up in the (-----) suburbs. He got COVID right off the bat. I think that is when they started getting cases in December. He went down to New Orleans, and he caught COVID-19 and he had it in January, so he had it right away, and he got sick with it. He was a big

> influence on me because he said, “Don't listen to what Joe Schmo on the Internet is saying; he said, make sure you get good solid facts.” And so, I think the fact that he got so sick is one of the factors that made my wife and I just be so careful and take so many precautions. I think that's a big reason we never got COVID-19. We saw an example immediately of somebody catching it and getting sick and what it could do to you. We just wanted to ensure we had as many facts as possible to make good, solid decisions and protect ourselves and our families. (John L56)

This instance illustrates how personal experiences within one's immediate social circle can directly impact health behavior decisions. Participants also described how their fundamental belief systems predisposed them to certain attitudes towards the vaccine. This factor highlights the role of pre-existing worldviews in mediating new information and influencing health-related behaviors, suggesting that vaccine acceptance may be part of a broader spectrum of personal and ideological consistency. Family upbringing and the beliefs instilled by family members were noted as influential in shaping vaccine perceptions. Whether supportive or skeptical, the familial context provided a foundational perspective that facilitated vaccine acceptance of or fueled skepticism toward the virus. Advice from health workers was another factor participants reported that helped them place trust in health professionals within their networks, such as nurses and public health experts, whose opinions helped to guide their decisions regarding the vaccine. Lucy said:

> I am also very lucky that my mom was a nurse, and my sister was a doctor. So, we would, you know, see, what is going on in the healthcare industry? Hearing versus the CDC. (Lucy L18)

This highlights the importance of credible and familiar sources in disseminating health information. Finally, the role of the media was a dominant theme, with participants indicating that the media's portrayal of the pandemic influenced their perceptions and, ultimately, their decision-making process regarding vaccination. The type of media consumed not only provided information but also shaped the emotional and cognitive responses to the pandemic, illustrating the powerful role of media in public health crises. The factors influencing vaccination decisions during the COVID-19 pandemic are deeply intertwined with individuals' social environments, personal relationships, and core beliefs. These findings highlight the complexity of health decision-making processes and the need for nuanced public health strategies considering these diverse influencing factors to effectively address vaccine hesitancy and public health compliance.

RQ3: Users' Trust

Research question three sought to understand how social media users gauge trust in information sources about the COVID-19 pandemic. The question explored how users evaluate trust in information sources during the COVID-19 pandemic and how misinformation or conflicting information influenced user behavior. To understand this, factors that determined platform choice, individual trust and vulnerability to information sources, and how individuals used sources for information were selected as categories. Similar patterns were identified from these designated categories, leading to four sub-themes that summarized respondents' responses to this question. The sub-themes are discussed below.

Channels Relied on for Information

The study identified various channels through which participants obtained information about COVID-19, reflecting a diverse landscape of trust and information consumption. These

channels were categorized into social media, reliable sources, community networks, expert opinions, traditional news media, and scholarly sources. Each category showcases different trust levels and information validation approaches adopted by participants. Some interviewees utilized platforms such as Instagram and Twitter to stay updated on COVID-19. Notably, preferences were shaped by personal connections. For example, one participant preferred Twitter due to the absence of their family members on the platform, potentially reducing the emotional bias that family members might interject and unwanted interactions over COVID information and policy. Others found Facebook valuable due to its connectivity with friends and acquaintances. However, it was not often trusted as a primary source for factual news but for observing communal reactions. Trust was significantly placed in recognized health authorities and scientific publications. Lucy, Jessy, and Christy frequently mentioned the Centers for Disease Control and Prevention (CDC) as a primary source of accurate information, underscoring their trusted authority in managing health crises. Moreover, reputable organizations like the Mayo Clinic and the World Health Organization were also relied upon, showing their credibility in the field.

Social media was one of the channels used, and people chose it for the social aspect of information-sharing, which was a source of trust in peers, particularly for those participants in professional circles. A participant said that nurses on social media were considered reliable by their colleagues if the shared information was verified against accredited sources:

> A lot of my friends on social media are also nurses, and we all pretty much felt strongly that there was a lot of misinformation at the time, so if a fellow nurse posted something, I would check it out. But a lot of times, those would be from accredited sources. (Kitty L42)

For some participants, trust was extended to broader communities and educational networks, where efforts were made to discern reliable information amidst widespread misinformation. Direct communication with experts, such as discussions with professors or listening to interviews with medical professionals on platforms like CNN and YouTube, provided another layer of trusted information. These interactions allowed users to engage with content, offering direct insight from field experts. However, dependency on this platform could be because of a sample that's biased toward trusting scientific expertise because not everyone gravitates to these trusted sources and instead might rely on right-wing media, Trump, etc.

Other platforms mentioned by the participants are mainstream news media outlets such as The New York Times, The Washington Post, CNN, and the Huffington Post. Despite trust concerns, these sources were crucial for participants seeking comprehensive news coverage. The choice of these outlets was influenced by their reputational standing and perceived editorial standards. Again, right-leaning individuals would see publications like the NYT and the Washington Post as biased liberal publications rather than independent, trustworthy sources. As the pandemic progressed, there was a shift toward more scholarly content, with participants seeking out scientific papers and research findings on platforms like Google Scholar. This transition highlights a proactive approach among users to engage with more in-depth analyses and peer-reviewed studies to understand the evolving nature of COVID-19 better. These findings illustrate different approaches to information sourcing during the COVID-19 pandemic, where trust is dynamically shaped by the source's perceived authority, professional validation, and the personal relevance of the information channels.

How Individuals Use Sources for Information and Factors That Determine It

Many participants said they monitored news sources daily to keep abreast of the constantly changing situation regarding COVID-19. The discussion of the virus' effects at the pandemic's outset made it challenging for individuals to avoid constant exposure. This daily engagement ranged from passive reception to active searching, with some participants noting a significant increase in their news consumption compared to pre-pandemic habits. Other participants opted for less frequent updates, checking news every other day or every few days, depending on the emergence of new information. This approach was to manage and avoid information overload, highlighting how personal well-being influenced information consumption habits. This aligns with the theories Tewksbury and Althaus (2000) discussed in their Dynamic Model of Internet News Consumption. This model emphasizes how personal preferences and situational variables influence how people access and consume news, particularly during significant events. Kitty states that she checks for updates every week, though she and other participants accessed COVID-19-related data frequently over time as the pandemic's immediate uncertainties became routine.

> "It's probably on a weekly basis for a while and then gradually monthly. Just because so many things were changing at work on requirements and things". (Kitty L73)

This gradual reduction in the frequency of checking the media reflects an adaptation to the prolonged nature of the pandemic, where the initial urgency to obtain information waned as participants acclimated to the ongoing crisis. The major factor determining the choice of information platforms among participants was the credibility and accuracy of the information. Most participants emphasized the importance of factual and reliable data, guiding them to select platforms known for rigorous reporting and authoritative updates.

> Once I started checking the things that people said, I found that there were just specific respected sources like (------). You know what he said? Take it like it was coming from the burning bush. That's actual factual information. But I just nodded and smiled information other people, but I wouldn't pay any attention to it. (John L43)

This shows how many participants navigate the vast amount of information available, aiming to minimize exposure to misinformation. The different approaches to information consumption reveal not only the strategies individuals employ to remain informed but also the motivations driving their choices, such as the need for accuracy, the management of information overload, and the psychological impact of the pandemic. This behavioral insight into information consumption during a global crisis offers valuable perspectives on public information strategies and the importance of credible journalism.

How the trustworthiness of the source impacted attitudes during COVID

Data from my interviews suggests that several participants experienced a decline in trust due to perceived political interference in disseminating information about COVID-19.

> The whole political motivation just drove me crazy because it just seemed like so many people were Republicans and were, you know, right-wing Conservatives. They just came up with the craziest things, anything to do with science. It's like they couldn't stand it. And they had to come up with these just crazy ideas. (John L46)

This erosion of trust was often attributed to the politicization of health information, which led individuals to become skeptical of the motives behind the information. This skepticism was intensified by the polarized political climate, which clouded the informational landscape and led to a general disengagement from sources perceived to be politically biased. The mistrust was not limited to a single instance but was a gradual process exacerbated by ongoing political tensions

influencing public discourse. Participants noted that some individuals were prone to accepting and spreading information that aligned with their personal biases or agendas regardless of its veracity. This tendency was particularly pronounced when misinformation reinforced existing beliefs or narratives, demonstrating the powerful role of cognitive biases in information processing and trust formation. However, some participants maintained high trust in government-provided guidelines and information.

> The hospitals were probably more hypersensitive about mask-wearing exposure and were more conservative than the CDC. But if I had seen the steps on the CDC's website, that's what the hospital industry is doing. Then, I'm consistent with different parties. (Lucy L20)

> I probably did, in many cases, check some things I saw on Facebook and against things I could read on the CDC website. (Kenny L31)

This trust was rooted in the integrity and intentions of governmental bodies, suggesting a differentiation in trust levels based on the institution's perceived role and responsibility. For these individuals, governmental sources were seen as inherently more reliable and acting in the public's best interest, indicating a foundational trust that persists despite broader trends of skepticism. These findings show the interplay between information source credibility, personal and political biases, and the broader social and political environment and how that shapes public attitudes during a health crisis.

Individual Trust and Vulnerability to Information Sources

Finally, having discussed channels relied on for information, how individuals use sources for information, and how the source's trustworthiness impacted attitudes during COVID-19, it is crucial to understand individuals' trust or vulnerability to information sources. This aspect will

help us understand the nature of information dissemination and reception during a public health crisis. Interviewees' responses reveal that individual trust and vulnerability to information sources were influenced by a mixture of past experiences, existing biases, health concerns, and the socio-political environment. Participants demonstrated a strong inclination to adhere to information sources they trusted before the pandemic. Kenny, who is an adjunct professor, had this to say:

> Well, it has to do with the history and reputation of the source. So, for example. I have read major newspapers for a long time, like The New York Times. I lived in New York City for a while. And the Washington Post. I lived in and went to school in Washington, DC. So, I have experience with both sources, and I know they will sometimes correct errors when they make errors. And that is one way of building trust that, I think, makes sense. Also, there are old institutions and famous institutions. I think those are indicators of general trustworthiness that other sources online don't have, and they are the same with the CDC. It's not a newspaper, of course. It's a different kind of institution, but it comprises scientists and physicians. I also know something about how science functions and how scientists constantly check each other's work and try to reproduce each other's results. The CDC is staffed by scientists and is an old and established government institution. I consider it to be more trustworthy than other sources of information that are out there. (Kenny L59)

This level of trust shows that continuity and consistency in source reliability are crucial. Individuals tended to stick with familiar, proven sources, indicating a preference for stability in their informational environments during uncertain times.

Distrust emerged as another prominent theme, particularly concerning online information. The overwhelming flow of digital content led to heightened scrutiny and the need for fact-checking among users. Skepticism was not just confined to online sources; there was a notable decline in trust in government organizations and the media. Lucy, Jessy, and Christy supported this idea:

> I think some of it is disbelief in the government. You know if you're leaning one way and based on a certain person you follow. Maybe because there are more beliefs, you know that the government is out to get us, so I think it's inherent. (Lucy L72)
>
> It was highly politicized. I mean, like, if you were. You know, leaning towards the right, it was almost like you could never get a vaccine. Then, our leader denied it was a problem. And so, you could not admit that it was a problem, and therefore, you could not wear a mask, and you could not, you know, get a vaccine or anything like that. which I mean is too bad that it turned into this, you know—sort of political circus. (Jessy L74)
>
> I think the source of some people's distrust may also come back to what I discussed before, where the guidance we got kept changing because that's the scientific process. You change your mind as you obtain new information, so naturally, that information would have changed, but people see it as if their minds are changing. Then you didn't know what you were doing. (Christy L73)

This issue highlights a crisis of confidence in government and information pillars. Health concerns also influenced how some participants processed information, with those having pre-existing conditions or health anxieties adopting more conservative approaches to the information they accepted. This cautiousness reflects a protective strategy, emphasizing personal health stakes in evaluating informational credibility. Another major factor is cultural and familial

upbringing, which plays a role in shaping trust. Participants reported a tendency to align with information sources that reflect the ideological and cultural narratives familiar from their upbringing. This alignment often gravitated towards sources that matched their pre-existing worldviews, illustrating the deep-rooted influence of socialization on information trust. Kitty said that the urgency of the pandemic also created a universal sense of vulnerability, leading to a desperate search for immediate solutions.

> I think everyone is vulnerable. I think everyone just wanted it to be over or a solution immediately. When the first shutdown happened, I was like, what we thought was weeks turned into months. I think everyone wanted a quick fix. And I mean, I am not blaming maybe the government or the CDC. I guess what weeks they initially thought behind was the exposure. So maybe they pick weeks. Maybe that even set the precedent that this will be done in weeks. And you know, everyone thought this was a super quick fix, but it was not. (Kitty L88)

This urgency sometimes resulted in accepting simplistic information, showing how a crisis can lower the public's scrutiny threshold.

To conclude, information sources' historical reputation and established credibility were highlighted as a guiding trust. Participants valued long-standing, reputable organizations, suggesting that a track record of reliability plays a crucial role in sustaining trust during times of widespread uncertainty. These findings reveal the complexity of public trust during global health crises like COVID-19, highlighting the influences that dictate how individuals discern and select their information sources.

CHAPTER V: DISCUSSION

This study explores the influence of social media platforms and fact-checking organizations on public trust during the COVID-19 crisis. The purpose of the thesis is to understand the influence of social media and fact-checking organizations on individual trust during the pandemic. The study anticipated cognitive dissonance theory, but it showed that many participants sought information that aligned with their current opinions, thus maintaining their original stance and trust levels. This finding suggests that cognitive biases and selective exposure play a significant role in how people process information during a crisis. This chapter discusses the findings related to existing literature, the study's theoretical framework, and its practical implications. The availability of user-provided content in online social media facilitates the aggregation of people around shared interests, worldviews, and narratives (Del et al., 2016).

This section will first discuss each research question, covering the three themes: user perceptions, individual openness, and user trust, tying it to previous research and highlighting the ideas for each. This will be followed by the conceptual and practical implications, limitations of the study, future directions, and a conclusion that will be discussed.

Summary of Findings

I conducted a thematic analysis of the 9 semi-structured to analyze the participants' responses. After the coding and categorization process, about 14 categories were identified, covering all the research questions. From those 14 categories, three themes were developed to capture the participants' responses in line with the research questions. These three themes are discussed below.

User Perceptions

The first research question sought how users' perceptions of COVID-19 health recommendations changed after using a fact-checking organization (i.e., how exposure to fact-checking information impacted their beliefs and behaviors regarding health guidelines). According to the responses, users' beliefs and behaviors concerning health guidelines shifted post-exposure to fact-checked information. The data identified several sub-themes, including the initial encounter with misinformation, the impact of fact-checking on these misconceptions, and the continuing challenges posed by the clarity and accessibility of information. Participants reported many experiences with misinformation, particularly concerning the severity of COVID-19 and its transmission. This aligns with Vosoughi et al. (2018), who found that misinformation spreads faster and more widely than factual information on social media. This influences public perceptions and behaviors, often to their detriment, as people act on inaccurate information. Similarly, Pennycook et al. (2020) discuss how susceptibility to misinformation can be exacerbated by cognitive biases, a theme that resonates with the misinformation experiences described by participants in this study.

The variation in responses to misinformation among participants shows the complexity of changing misinformed beliefs, a challenge noted in the literature. This supports the observations from this study, where some participants remained skeptical despite exposure to corrected information, highlighting the limits of fact-checking as discussed by Nyhan et al. (2022), who explored how ideological alignment affects the acceptance of fact-checked information. The emotional and cognitive resistance to contradictory information observed among participants in the present study illustrates the concept of cognitive dissonance (Miller et al., 2015). The reported difficulties in accessing clear and accessible information highlight the need for effective

communication during health emergencies. Bode and Vraga (2017) emphasize that clear and accessible public health communications can positively influence public behavior. Moreover, Viswanath and Kreuter (2007) support the importance of tailored communication to meet diverse audience needs, arguing that addressing differences in information processing and health literacy is crucial to improving public health outcomes.

This study's findings are consistent with the existing literature, reinforcing the impact of misinformation on public health responses during the COVID-19 pandemic and the challenges associated with correcting public misperceptions. Moving forward, public health strategies should incorporate insights from communication theories to enhance the clarity, accessibility, and effectiveness of health messaging, as advocated by Kreps and Maibach (2008), who call for more integrative approaches to public health communication.

Individual Openness

Participants expressed increased trust when information came from reputable organizations like the CDC and WHO, distinguishing these sources from less reliable media outputs, especially platforms like Facebook. This differentiation between sources aligns with findings by Lewandowsky et al. (2013), who emphasize the importance of source credibility in influencing public acceptance of information. Participants like Clare, who cross-verified information across multiple credible sources, exemplify behaviors discussed by Flanagin and Metzger (2000), who argue that information literacy includes the ability to evaluate the trustworthiness of sources in the digital age. The mistrust in information from platforms perceived as politically or commercially biased reflects the broader discussions in the literature on media skepticism, particularly in highly polarized environments Fiorina et al. (2008). The observed hesitancy to accept information aligns with Pennycook et al.'s (2020) findings that

familiarity with a source and alignment with pre-existing beliefs influence information acceptance. Hesitancy among participants often stemmed from perceptions of bias or past inaccuracies in reporting, as seen with participants rejecting TV news or distrusting information from politically aligned individuals. This behavior supports Tsfati and Cappella (2003) discussion on the growing trend of media skepticism, where perceived media bias leads to dismissing potentially valid information. Moreover, rejecting extreme claims, like those involving bleach as a COVID-19 cure, ties into the concept of motivated reasoning described by Kunda (1990), where individuals are more likely to scrutinize information that seems unusually discordant with established knowledge.

On the other hand, acceptance was strongly linked to information endorsed by reliable authorities or presented with clear, factual backing. This finding is supported by the heuristic-systematic information processing model (Chaiken, 1980), which suggests that people employ cognitive shortcuts, such as trusting expert sources, to reduce the effort involved in evaluating information. This analysis also revealed that misinformation influenced individual beliefs and interpersonal relationships. The spread of misinformation led to disagreements and tension within personal networks, illustrating the "echo chamber" effect where reinforced pre-existing beliefs can lead to social polarization (Chen et al., 2023). Participants like Mark, who experienced familial disagreements over vaccination, show the role of personal relationships and shared beliefs in information processing and acceptance Turner and Makhija (2012The findings from RQ2 enrich the scholarly discussions on information credibility, media literacy, and the social dynamics of misinformation. By situating individual responses within the frameworks of established communication theories, this analysis validates the academic conversation about the

challenges and strategies for managing public health information in a digital age dominated by misinformation.

Users' Trust

During times of crisis, timely and accurate information can impact public behavior and health outcomes. Trust influences how information is received, processed, and acted upon, making it a foundational element in effective communication strategies. Participants described how they diversified their sources of COVID-19 information, relying on a mix of social media, established health authorities, and traditional news media. This behavior aligns with Sundar's (2007) MAIN model, which suggests that the medium through which information is received affects its perceived credibility. The reliance on authoritative sources such as the CDC and WHO corroborates the findings of Freeman and Chapman (2008), who highlight the role of institutional trust in public health communication. The study's findings also support the idea that people turn to recognized authorities for reliable information during health crises, as You et al. (2023) suggested in their work on trust and credibility in risk communication.

Participants' selection of information sources, ranging from daily updates to less frequent engagement, illustrates active information-seeking behavior, as noted in the literature on information behavior during crises Krakowska (2020). The variation in engagement levels, as noted by participants like Kitty, who adjusted the frequency of updates to manage information overload, aligns with the concept of coping mechanisms in information behavior research (Savolainen, 2007). The focus on credible, factual information and avoidance of speculative content reflects the principles outlined by Kahneman's (2011) theory of cognitive ease, where individuals prefer information that is more easily processed and comes from a trusted source. This is consistent with the literature that suggests that during times of uncertainty, people are

more likely to rely on heuristic cues such as source credibility to make quick judgments about information (Chaiken, 1980). As expressed by participants like John, the erosion of trust due to the politicization of health information mirrors the concerns that Garrett et al. (2016) raised about political ideology's impact on information processing and trust. The skepticism towards politically charged information sources reflects Festinger's (1957) theory of cognitive dissonance, where conflicting information from a trusted source can lead to discomfort and diminished trust. This theme is further explored in the literature on media skepticism, where Tsfati and Cappella (2003) discuss how perceived media bias can lead to decreased trust and reliance on alternative information sources. The participants' experiences indicate a need for non-partisan, clear communication from public health officials, as Saechang et al. (2021) emphasized, to maintain public trust and compliance during health emergencies.

The findings from individual trust and vulnerability highlight the significant role of prior experiences and established trust in shaping information preferences during the pandemic. This is supported by Petty and Cacioppo (1986), suggests that personal relevance and prior attitudes influence the route of information processing and the degree of scrutiny applied to persuasive messages. Moreover, the discussion around the decline in trust in government and media sources due to changing guidelines and perceived political interference ties back to the work of Slovic (1993), who argues that trust is a fragile resource that perceived inconsistencies or ulterior motives can quickly deplete.

Ultimately, the research questions' findings highlight insights into the interplay between information dissemination, trust, and public behavior during the COVID-19 pandemic. These insights emphasize the importance of trust in information sources and delineate the multifaceted nature of communication challenges faced by health authorities and the public.

Conceptual Implications

While fact-checking initiatives are often seen as a promising intervention to correct inaccuracies and enhance information accuracy, emerging research suggests their impact on changing individuals' misconceptions and beliefs may be limited. Kettemann et al. (2021). The reliance on social media for information increases the risk of exposure to false or misleading information, as users can easily share and amplify that information. Vosoughi et al. (2018). In highlighting solutions to this problem, previous research confirms that an approach that integrates education on media literacy, increased transparency from social media platforms, and more robust regulatory frameworks can potentially mitigate the spread of misinformation (Korona & Hutchison, 2023). Engaging communities through credible community leaders and influencers can also play a role in reinforcing the impact of fact-checking by making it more relatable and trusted (Ames et al., 2019); it is, therefore, valuable to evaluate how this study's findings relate to these broader contexts and strategies.

Three research questions were developed to understand this, including how users' perceptions of COVID-19 health recommendations change after using a fact-check organization, what factors influence individuals' openness to accepting fact-checks during the COVID-19 pandemic, and how users' trust in social media affects individual' susceptibility to COVID-19 information, user perceptions, individual openness, and user trust. The study's results show how misinformation influences public opinion and fact-checking interventions. The few participants and survey respondents who reported having experience with reliable fact-checking services did change their stance towards COVID-19 misinformation. This suggests that fact-checking can be effective. This supports previous research that reported that misinformation often embeds itself more deeply within communities when it appeals to emotional biases or pre-existing beliefs

(Adams et al., 2023). The results also confirm prior research specifying that consistent exposure to fact-checked information can gradually build resilience against misinformation if the fact-checking is presented contextually, appropriately, and in a way that respects the audience's cultural and social backgrounds (Porter & Wood, 2021). This approach helps reduce the defensive reactions often associated with encountering contradictory information. Lastly, findings on user trust show that trust levels vary based on the sources of information. Users who trusted and accessed fact-checked content consistently exhibited more discerning behavior towards misinformation, aligning with the findings of Van Bavel et al. (2020) who highlighted the importance of credible figures in enhancing communication effectivenessThe findings of this study are helpful conceptually as they add to existing knowledge on the relationship between information dissemination, trust, and public response during health crises. Participants' responses enhance our understanding of several conceptual areas and suggest avenues for expanding theories related to communication, public health, and social behavior. The role of trust observed in this study echoes the assertions by Luhmann (1979), who emphasized trust as a fundamental factor in social systems' functioning, particularly in reducing social complexity in times of uncertainty. The findings here can be seen as empirical support for refining Luhmann's concept of trust, specifically within digital communication and health crises. Sundar (2007) MAIN model, which outlines the core modalities that influence the perception of online information (Modality, Agency, Interactivity, Navigability), provides a theoretical backdrop against which this study's observations on multi-source information processing can be further explored. This study adds to the model by emphasizing the role of emotional and community-driven components in evaluating information credibility.

The findings support and extend the principles outlined by Kreuter and Wray (2003), who advocate for tailored health communications to address individual differences in health behavior change. This study provides examples of how individual beliefs and community influence the reception of health messages, suggesting more nuanced approaches in tailoring health communication. The study's impact on community and social networks aligns with Rogers (1962) Diffusion of Innovations theory, which examines how community ideas and behaviors are spread. The findings suggest modifications to the theory to include digital and social media's role in modern diffusion, especially during health crises. The resilience of misinformation despite factual corrections observed in this study can be conceptually tied to Nyhan and Reifler (2010) findings on the persistence of political misperceptions. This study extends their work by applying similar concepts to health misinformation, suggesting areas for further theoretical development in understanding and addressing misinformation in health crises. The cognitive and emotional reactions to misinformation identified in this study underscore Festinger (1957) theory of cognitive dissonance. The findings suggest that emotional responses to contradictory information are an area of investigation that can enhance understanding of how dissonance is managed in the context of health information.

Potter (2004) media literacy theory emphasizes the cognitive, emotional, and aesthetic skills necessary to analyze media messages critically. This study’s insights into the complexities of digital information during a health crisis suggest that media literacy models need to incorporate strategies specifically tailored to evaluate health information's credibility. Hobbs et al. (2022) advocate for media literacy as a public health intervention, supporting the argument for integrating media literacy into public health education. The detailed examination of how

misinformation affects public health responses provides empirical data that can help shape curricula that combine media literacy with public health education.

In summary, this study's findings offer valuable contributions that align with and have the potential to refine and expand upon existing theoretical constructs in crisis communication, public health communication, scientific communication, and media literacy. These conceptual implications, grounded in empirical data, provide a robust foundation for future scholarly exploration and practical application in managing public health information and misinformation.

Practical Implications

This study's findings have important implications for public health officials, policymakers, and communicators tasked with managing information dissemination during health crises. This is possible because it provides insight into the dynamics of trust, the effectiveness of different communication channels, and the impact of misinformation on public behavior. According to the data, individuals place considerable weight on the source's credibility and are influenced by the consistency of the information that the source provides.

The following are the key recommendations based on the findings of this study.

Enhancing Trust in Public Health Messaging

To build trust, public health agencies should ensure consistent, transparent, and accurate communication. Providing timely updates and admitting uncertainties can help manage public expectations and reduce the spread of misinformation. This aligns with the findings of Wilkins (2018), who emphasized that trust is crucial in effective health communication. Consistency in messaging, as noted by participants who trusted consistent sources like the CDC, reinforces public confidence and compliance (Luhmann, 1979).

Leveraging Diverse Communication Channels

To ensure a wide and effective reach, utilize a multi-channel approach to disseminate health information. This includes traditional media, social media, and direct community engagements. The diversity in channel usage among participants highlights the need for a robust multi-platform strategy that considers varying trust levels and information-seeking behaviors, as Sundar (2007) discussed in the MAIN model, where modality plays a crucial role in information processing.

Fact-checking and Media Literacy

Strengthen fact-checking initiatives and promote media literacy to help the public identify and reject misinformation. This could be through educational programs and partnerships with trusted influencers to amplify correct information. Reflecting on participants' reliance on fact-checking to form judgments, Metzger et al. (2010) advocate for enhanced media literacy to empower individuals to evaluate the credibility of information sources effectively.

Addressing Information Overload

Develop guidelines to help the public manage information consumption without becoming overwhelmed. Just as participants adjusted their information consumption over time to prevent overload, Perry and Lindell (1997) suggested that managing exposure to crisis information can reduce anxiety and enhance the clarity of communication.

Political Neutrality in Health Communication

During a health crisis, health communications should be free from political biases to increase their acceptance across different demographic and political groups. Participants noted the impact of politicization on trust, which supports the work of Van der Meer and Jin (2019),

who found that political neutrality helps maintain the credibility and effectiveness of public health messages.

Enhancing Accessibility and Inclusivity

Make health communications accessible to diverse audiences, including those with limited internet access, lower health literacy, or linguistic barriers. Reflecting on the challenges homeless or less educated participants face in accessing information, Kreps and Maibach (2008) argue for tailored communications that meet the specific needs of diverse populations, enhancing the overall efficacy of public health interventions.

Building and Maintaining Public Trust

Continuous engagement with the community and proactive transparency about health measures can foster foundational trust, even among skeptical segments of the population. Participants' trust in established health authorities like the CDC shows the importance of long-term credibility and trust-building efforts, as Renn and Levine (1991) highlighted in their discussions on trust in risk communication.

Limitations and Future Directions

The limited racial demographic of this study is a significant limitation. Although efforts were made to recruit participants across different races and ethnicities in the United States of America during the pandemic, over 90% of participants from the survey were White/Caucasian. A major reason for this was that participation was voluntary. I had to rely on participants who responded to the study recruitment posted on social media, the research board for my university’s communication department, and mass emails sent to all students and staff at Illinois State University. In this case, most survey participants were White/Caucasian. As the data collection process progressed, intentional efforts were made to contact participants directly

through emails to be interviewed during the interview stage of data collection, who belonged to other races/ethnicities. However, it yielded low results, as only one African American student participant responded. Therefore, for future data collection in a study like this, I would recommend more intentionality in seeking out and posting study recruitment on specific social and support groups that target individuals of specific race/ethnicity on social media.

Another limitation of this study is that all participants had at least a college degree, which suggests that their responses reflected a certain level of educational attainment that may not be representative of the broader population. This also limits the generalizability of the findings to populations with lower levels of education, who might have different informational needs and responses to health crises. Also, this study asked participants to recall their experiences with fact-checking, which suggests that their responses reflected what they remembered and their subjective opinions. However, other factors may influence their perceptions or what they recall from their experiences. Future research may consider exploring these other factors and how they can influence individuals' perceptions of fact-checking.

The results of this study indicate that exposure to fact-checking can influence individuals' ability to discern accurate information, which in turn may impact their confidence in making informed decisions during a health crisis. Future research should explore this finding to determine if the ability to effectively engage with and understand fact-checking influences self-efficacy in interpreting health information. This will help clarify the relationship between media literacy, fact-checking engagement, and self-efficacy.

This study also demonstrates strengths that enhance its credibility and contribute to the field of communication and public health. Referential adequacy and internal member checks (Lincoln & Guba, 1985) helped validate the thematic development, ensuring that the themes

accurately reflected participants' views. Furthermore, employing a sampling method that includes participants from diverse backgrounds and different levels of exposure to misinformation helped to provide a wide range of perspectives, enriching the findings. Future research should consider employing a broader sample to enhance these findings' generalizability and theoretical development.

Although effective communication in health crises is becoming increasingly recognized, this study can serve as a foundation for further research into how different populations engage with and benefit from fact-checking. These insights have practical implications for designing targeted interventions that enhance public understanding and response during health emergencies. The eagerness of participants to engage in this study reflects the relevance and urgency of this topic, underscoring the need for ongoing research and intervention development to improve public health communication strategies.

Conclusion

This study explored the influence of social media platforms and fact-checking organizations on public trust during the COVID-19 crisis, focusing on how this influence public behavior in health emergencies. The findings show the role of credible information sources in enhancing public responses to health advisories.

The results of this study demonstrate that reliable fact-checking can improve individuals' ability to discern misinformation. This study supports Metzger and Flanagin (2013) study that discusses the importance of source credibility and media literacy in the digital age. These findings suggest that individuals with accurate information from trusted sources exhibit stronger compliance with health directives. This concept aligns with the Health Belief Model discussed by Rosenstock (1974), highlighting perceived credibility as a determinant in health-related

behavior change. The reinforcement provided by trusted sources enhances critical thinking, empowering individuals to make informed decisions during crises and supporting Bandura (1986) theory on self-efficacy, which posits that confidence in one's capabilities can drive effective action. This study contributes to the broader discourse on crisis communication, emphasizing the need for robust, credible communication strategies to counter misinformation effectively.

In response to the challenges posed by misinformation during health crises, this study underlines the necessity for public health officials and communication specialists to enhance the effectiveness and reach of fact-checking mechanisms. As Cohen and Garrett (2001) discuss the evolving challenges of maintaining public trust in digital media, such strategic enhancements are critical. Future research should continue to explore these dynamics across different contexts and with diverse populations to ensure the generalizability of the results and refine communication strategies for varied health crises. Such efforts will extend the existing literature on crisis communication and public health management, offering valuable insights for developing communication frameworks that foster an informed, trusting public capable of effectively navigating the complexities of health emergencies.

REFERENCES

Adams, Z., Osman, M., Bechlivanidis, C., & Meder, B. (2023). (Why) is misinformation a problem? Perspectives on Psychological Science, 18(6), 1436–1463. https://doi.org/10.1177/17456916221141344

Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. Journal of economic perspectives, 31(2), 211-236. https://doi.org/10.1257/jep.31.2.211

Allington, D., & Dhavan, N. (2020). The relationship between conspiracy beliefs and compliance with public health guidance with regard to COVID-19. Centre for Countering Digital Hate.

Amazeen, M. A. (2020). Journalistic interventions: The structural factors affecting the global emergence of fact-checking. Journalism, 21(1), 95–111. https://doi.org/10.1177/1464884917730217

Anwar, A., Malik, M., Raees, V., & Anwar, A. (2020). Role of mass media and Public Health Communications in the COVID-19 pandemic. Cureus, 12(9), e10453. https://doi.org/10.7759/cureus.10453

Ames, H. M., Glenton, C., Lewin, S., Tamrat, T., Akama, E., & Leon, N. (2019). Clients' perceptions and experiences of targeted digital communication accessible via mobile devices for reproductive, maternal, newborn, child, and adolescent health: a qualitative evidence synthesis. Cochrane Library, 2019(10), CD013447. https://doi.org/10.1002/14651858.cd013447

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human Decision Processes, 50(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-t

Apuke, O. D., & Omar, B. (2021). Social media affordances and information abundance: Enabling fake news sharing during the COVID-19 health crisis. Health Informatics Journal, 27(3), 14604582211021470.

Ayala, G., Sprague, L., van der Merwe, L. L. A., Thomas, R. M., Chang, J., Arreola, S., ... & Izazola-Licea, J. A. (2021). Peer-and community-led responses to HIV: a scoping review. PLoS One, 16(12), e0260555. https://doi.org/10.1371/journal.pone.0260555

Baker, R. E., Mahmud, A. S., Miller, I. F., Rajeev, M., Rasambainarivo, F., Rice, B. L., ... & Metcalf, C. J. E. (2022). Infectious disease in an era of global change. Nature Reviews Microbiology, 20(4), 193-205. https://doi.org/10.1038/s41579-021-00639-z

Bandura, A. (1986). The explanatory and predictive scope of self-efficacy theory. Journal of Social and Clinical Psychology, 4(3), 359–373. https://doi.org/10.1521/jscp.1986.4.3.359

Bandura, A. (2006). Toward a psychology of human agency. Perspectives on Psychological Science, 1(2), 164–180. https://doi.org/10.1111/j.1745-6916.2006.00011.x

Barbier, G., Zafarani, R., Gao, H., Fung, G., & Liu, H. (2012). Maximizing benefits from Crowdsourced Data. Computational and Mathematical Organization Theory, 18(3), 257–279. https://doi.org/10.1007/s10588-012-9121-2

Bauer, P. C., Keusch, F., & Kreuter, F. (2019). Trust and cooperative behavior: Evidence from the realm of data-sharing. PloS one, 14(8), e0220115. https://doi.org/10.1371/journal.pone.0220115

Bavel, J. J. V., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M. J., Crum, A. J., Douglas, K. M., Druckman, J. N., Drury, J., Dube, O., Ellemers, N., Finkel, E. J., Fowler, J. H., Gelfand, M., Han, S., Haslam, S. A., Jetten, J., … Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. Nature Human Behaviour, 4(5), 460–471. https://doi.org/10.1038/s41562-020-0884-z

Benkler, Y., Faris, R., & Roberts, H. (2018). Network propaganda: Manipulation, disinformation, and radicalization in American politics. Oxford University Press. https://doi.org/10.1093/oso/9780190923624.001.0001

Bessi, A., & Ferrara, E. (2016). Social bots distort the 2016 US Presidential election online discussion. First monday, 21(11-7). https://doi.org/10.5210/fm.v21i11.7090

Betsch, C., Böhm, R., & Chapman, G. B. (2015). Using behavioral insights to increase vaccination policy effectiveness. Policy Insights from the Behavioral and Brain Sciences, 2(1), 61-73. https://doi.org/10.1177/2372732215600716

Bhat, G., Danelljan, M., Gool, L. V., & Timofte, R. (2019). Learning discriminative model prediction for tracking. In Proceedings of the IEEE/CVF international conference on computer vision (pp. 6182-6191). https://doi.org/10.1109/iccv.2019.00628

Blair, R. A., Morse, B. S., & Tsai, L. L. (2017). Public health and public trust: Survey evidence from the Ebola Virus Disease epidemic in Liberia. Social science & medicine, 172, 89-97. https://doi.org/10.1016/j.socscimed.2016.11.016

Bode, L., & Vraga, E. K. (2017). See Something, Say Something: Correction of Global Health Misinformation on Social Media. Health Communication, 33(9), 1131–1140. https://doi.org/10.1080/10410236.2017.1331312

Bolsen, T., & Palm, R. (2022). Politicization and COVID-19 vaccine resistance in the US. Progress in molecular biology and translational science, 188(1), 81-100. https://doi.org/10.1016/bs.pmbts.2021.10.002

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brennen, J. S., Simon, F. M., Howard, P. N., & Nielsen, R. K. (2020). Types, sources, and claims of COVID-19 misinformation (Doctoral dissertation, University of Oxford).

Brewer, N. T., Chapman, G. B., Rothman, A. J., Leask, J., & Kempe, A. (2017). Increasing vaccination: putting psychological science into action. Psychological Science in the Public Interest, 18(3), 149-207. https://doi.org/10.1177/1529100618760521

Bugert, J. J., Hucke, F., Zanetta, P., Bassetto, M., & Brancale, A. (2020). Antivirals in medical biodefense. Virus Genes, 56(2), 150–167. https://doi.org/10.1007/s11262-020-01737-5

Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. Journal of Personality and Social Psychology, 39(5), 752–766. https://doi.org/10.1037/0022-3514.39.5.752

Chen, S., Xiao, L., & Kumar, A. (2023). Spread of misinformation on social media: What contributes to it and how to combat it. Computers in Human Behavior, 141, 107643. https://doi.org/10.1016/j.chb.2022.107643

Carpenter, D. M., Geryk, L. L., Chen, A. T., Nagler, R. H., Dieckmann, N. F., & Han, P. K. (2016). Conflicting health information: a critical research need. Health Expectations, 19(6), 1173-1182. https://doi.org/10.1111/hex.12438

Cassedy, J. H. (1964). Muckraking and Medicine: Samuel Hopkins Adams. American Quarterly, 16(1), 85-99. https://doi.org/10.2307/2710829

Cinelli, M., Quattrociocchi, W., Galeazzi, A. et al. The COVID-19 social media infodemic. Sci Rep 10, 16598 (2020). https://doi.org/10.1038/s41598-020-73510-5

Cindy. (2012). Cognitive dissonance theory. Handbook of Motivation Science 71.

Cohen, E. A., & Garrett, L. (2001). Betrayal of Trust: The Collapse of Global Public Health. Foreign Affairs, 80(2), 174. https://doi.org/10.2307/20050100

Çömlekçi, M. F. (2022). Why do fact-checking organizations go beyond fact-checking? A Leap toward media and information literacy education. International Journal of Communication, 16, 21.

Cook, K. S., & Santana, J. J. (2018). Trust and rational choice. The Oxford handbook of social and political trust, 253-278. https://doi.org/10.1093/oxfordhb/9780190274801.013.4

Creed, W. D., Miles, R. E., Kramer, R. M., & Tyler, T. R. (1996). Trust in organizations. Trust in organizations: Frontiers of theory and research, 16, 38. https://doi.org/10.4135/9781452243610

Damota, M. D., & Uninversity, M. W. (2019). The effect of social media on society. New Media and Mass Communication, 78(9), 1-9. https://doi.org/ 10.7176/NMMC/78-02

Daniels, N., del Pilar Guzmán Urrea, M., Rentmeester, C. A., Kotchian, S. A., Fontaine, S., Hernández-Aguado, I., ... & Viens, A. M. (2016). Resource allocation and priority setting. Public health ethics: cases spanning the globe, 61-94. https://doi.org/10.1007/978-3-319-23847-0_3

Das, A., Liu, H., Kovatchev, V., & Lease, M. (2023). The state of human-centered NLP technology for fact-checking. Information Processing & Management, 60(2), 103219. https://doi.org/10.1016/j.ipm.2022.103219

Del Vicario, M., Bessi, A., Zollo, F., Petroni, F., Scala, A., Caldarelli, G., ... & Quattrociocchi, W. (2016). The spreading of misinformation online. Proceedings of the national academy of Sciences, 113(3), 554-559. https://doi.org/10.1073/pnas.1517441113

Deurenberg-Yap, M., Foo, L. L., Low, Y. Y., Chan, S. P., Vijaya, K., & Lee, M. (2005). The Singaporean response to the SARS outbreak: knowledge sufficiency versus public trust. Health Promotion International, 20(4), 320-326.

De Zwart, O., Veldhuijzen, I. K., Elam, G., Aro, A. R., Abraham, T., Bishop, G. D., ... & Brug, J. (2009). Perceived threat, risk perception, and efficacy beliefs related to SARS and other (emerging) infectious diseases: results of an international survey. International journal of behavioral medicine, 16, 30-40. https://doi.org/10.1007/s12529-008-9008-2

Dubé, E., Laberge, C., Guay, M., Bramadat, P., Roy, R., & Bettinger, J. A. (2013). Vaccine hesitancy: an overview. Human vaccines & immunotherapeutics, 9(8), 1763-1773. https://doi.org/10.4161/hv.24657

Dzigbede, K. D., Gehl, S. B., & Willoughby, K. (2020). Disaster resiliency of US local governments: Insights to strengthen local response and recovery from the COVID-19 pandemic. Public administration review, 80(4), 634-643. https://doi.org/10.1111/puar.13249

Edelman, C., & Kudzma, E. C. (2021). Health promotion throughout the life span-e-book. Elsevier Health Sciences. https://doi.org/10.1071/he10245

Edelman, B. (2011). Adverse selection in online “trust” certifications and search results. Electronic Commerce Research and Applications, 10(1), 17-25. https://doi.org/10.1016/j.elerap.2010.06.001

Festinger, L. (1957). A Theory of Cognitive Dissonance. In Stanford University Press eBooks. https://doi.org/10.1515/9781503620766

Fiorina, M. P., Abrams, S. A., & Pope, J. C. (2008). Polarization in the American Public: Misconceptions and Misreadings. The Journal of Politics, 70(2), 556–560. https://doi.org/10.1017/s002238160808050x

Flanagin, A. J., & Metzger, M. J. (2000). Perceptions of Internet Information Credibility. Journalism & Mass Communication Quarterly, 77(3), 515–540. https://doi.org/10.1177/107769900007700304

Flanagin, A. J., Metzger, M. J., Pure, R., Markov, A., & Hartsell, E. (2014). Mitigating risk in ecommerce transactions: perceptions of information credibility and the role of user-generated ratings in product quality and purchase intention. Electronic Commerce Research, 14, 1-23. https://doi.org/10.1007/s10660-014-9139-2

Freeman, B., & Chapman, S. (2008). Gone viral? Heard the buzz? A guide for public health practitioners and researchers on how Web 2.0 can subvert advertising restrictions and spread health information. Journal of Epidemiology and Community Health, 62(9), 778–782. https://doi.org/10.1136/jech.2008.073759

Freimuth, V. S., Musa, D., Hilyard, K., Quinn, S. C., & Kim, K. (2014). Trust during the early stages of the 2009 H1N1 pandemic. Journal of health communication, 19(3), 321-339. https://doi.org/10.1080/10810730.2013.811323

Friggeri, A., Adamic, L., Eckles, D., & Cheng, J. (2014, May). Rumor cascades. In proceedings of the international AAAI conference on web and social media 8(1) 101-110. https://doi.org/10.1609/icwsm.v8i1.14559

Gabarron, E., Oyeyemi, S. O., & Wynn, R. (2021). COVID-19-related misinformation on social media: a systematic review. Bulletin of the World Health Organization, 99(6), 455. https://doi.org/10.2471/blt.20.276782

Gan, Y., Chen, Y., Wang, C., Latkin, C., & Hall, B. J. (2020). The fight against COVID-19 and the restoration of trust in Chinese medical professionals. Asian journal of psychiatry, 51, 102072. https://doi.org/10.1016/j.ajp.2020.102072

Garrett, R. K., Weeks, B. E., & Neo, R. L. (2016). Driving a Wedge Between Evidence and Beliefs: How Online Ideological News Exposure Promotes Political Misperceptions. Journal of Computer-mediated Communication, 21(5), 331–348. https://doi.org/10.1111/jcc4.12164

Gerkin, R. C., Ohla, K., Veldhuizen, M. G., Joseph, P. V., Kelly, C. E., Bakke, A. J., ... & Parma, V. (2021). Recent smell loss is the best predictor of COVID-19 among individuals with recent respiratory symptoms. Chemical senses, 46, bjaa081. https://doi.org/10.1093/chemse/bjaa081

González-Padilla, D. A., & Tortolero-Blanco, L. (2020). Social media influence in the COVID-19 Pandemic. International braz j urol : official journal of the Brazilian Society of Urology, 46(suppl.1), 120–124. https://doi.org/10.1590/S1677-5538.IBJU.2020.S121

Guess, A. M., & Lyons, B. A. (2020). Misinformation, disinformation, and online propaganda. Social media and democracy: The state of the field, prospects for reform, 10. https://doi.org/10.1017/9781108890960.003

Guess, A., Nagler, J., & Tucker, J. (2019). Less than you think: Prevalence and predictors of fake news dissemination on Facebook. Science advances, 5(1), eaau4586. https://doi.org/10.1126/sciadv.aau4586

Graves, L., & Amazeen, M. A. (2019). Fact-checking is an idea and practice in journalism. In Oxford research encyclopedia of communication. https://doi.org/10.1093/acrefore/9780190228613.013.808

Graves, L. (2016). Deciding what's true: The rise of political fact-checking in American journalism. Columbia University Press. https://doi.org/10.7312/grav17506

Hameleers, M., & Van der Meer, T. G. (2020). Misinformation and polarization in a high-choice media environment: How effective are political fact-checkers? Communication Research, 47(2), 227-250. https://doi.org/10.1177/0093650218819671

Himelein-Wachowiak, M., Giorgi, S., Devoto, A., Rahman, M., Ungar, L., Schwartz, H. A., Epstein, D. H., Leggio, L., & Curtis, B. (2021). Bots and Misinformation Spread on Social Media: Implications for COVID-19. Journal of medical Internet research, 23(5), e26933. https://doi.org/10.2196/26933 History of Covid-19: Outbreaks and Vaccine Timeline." Mayo Clinic, Mayo Foundation for Medical Education and Research, www.mayoclinic.org/diseases-conditions/history-disease-outbreaks-vaccine-timeline/covid-19. Accessed 9 Nov. 2023.

History of COVID-19: Outbreaks and Vaccine Timeline. (n.d.). Mayo Clinic. https://www.mayoclinic.org/diseases-conditions/history-disease-outbreaks-vaccine-timeline/covid-19

Hobbs, R., Moen, M., Tang, R., & Steager, P. (2022). Measuring the implementation of media literacy statewide: a validation study. Educational Media International, 59(3), 189–208. https://doi.org/10.1080/09523987.2022.2136083

How Coronavirus Spreads. Centers for Disease Control and Prevention, Centers for Disease Control and Prevention, www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-

Humprecht, E., Esser, F., & Van Aelst, P. (2020). Resilience to online disinformation: A framework for cross-national comparative research. The International Journal of Press/Politics, 25(3), 493-516. https://doi.org/10.1177/1940161219900126

Hyland-Wood, B., Gardner, J., Leask, J. et al. (2021) Toward effective government communication strategies in the era of COVID-19. Humanit Soc Sci Commun 8, (30). https://doi.org/10.1057/s41599-020-00701-w

Itamar Simonson & Emanuel Rosen (2012) Absolute Value: what really influences customers in the age of (nearly) perfect information, Journal of Consumer Psychology, 22:3, 431–435.

Ireton, C., & Posetti, J. (2018). Journalism, fake news & disinformation: handbook for journalism education and training. Unesco Publishing.

James. (2019). The misinformation age How false beliefs spread. Yale University Press.

Jones, E. A., Mitra, A. K., & Bhuiyan, A. R. (2021). Impact of COVID-19 on mental health in adolescents: a systematic review. International journal of environmental research and public health, 18(5), 2470. https://doi.org/10.3390/ijerph18052470

Jones-Jang, S. M., Kim, D. H., & Kenski, K. (2021). Perceptions of mis-or disinformation exposure predict political cynicism: Evidence from a two-wave survey during the 2018 US midterm elections. New Media & Society, 23(10), 3105-3125. https://doi.org/10.1177/1461444820943878

Jones, M. M. (2010). The American Red Cross and Local Response to the 1918 Influenza Pandemic: A Four-City Case Study. Public Health Reports, 125(3_suppl), 92–104. https://doi.org/10.1177/00333549101250s312

Joshua, Andrew, Pablo, Cristian, Alexandra, Sergey, Denis, & Brendan. (2018). Social media political polarization and political disinformation A review of the scientific literature

Kahneman, D. (2011). Thinking, Fast and Slow. http://ci.nii.ac.jp/ncid/BB2184891X

Kaplan A, Haenlein M. Users of the world, unite! The challenges and opportunities of social media. Bus Horizons. 2010 Jan;53(1):59–68. doi: 10.1016/j.bushor.2009.09.003. doi: 10.1016/j.bushor.2009.09.003.

Kertscher, T. (2021, May 11). Fact-checkers can blunt the threat of disinformation. Poynter. https://www.poynter.org/fact-checking/2021/fact-checkers-can-blunt-the-threat-of-disinformation/

Kettemann, M. C., & Fertmann, M. (2021). Viral Information. How States and Platforms Deal with Covid-19-Related Disinformation. East European Yearbook on Human Rights, 4(1), 59–162. https://doi.org/10.5553/eeyhr/258977642021004001005

Korteling, J. E., Brouwer, A. M., & Toet, A. (2018). A Neural Network Framework for Cognitive Bias. Frontiers in Psychology, 9. https://doi.org/10.3389/fpsyg.2018.01561

Korona, M., & Hutchison, A. (2023). Integrating Media Literacy Across the Content Areas. Reading Research Quarterly, 58(4), 601–623. https://doi.org/10.1002/rrq.517

Kouzy, R., Abi Jaoude, J., Kraitem, A., El Alam, M. B., Karam, B., Adib, E., ... & Baddour, K. (2020). Pennycook, G., McPhetres, J., Zhang, Y., Lu, J. G., & Rand, D. G. (2020). Fighting COVID-19 misinformation on social media: Experimental evidence for a scalable accuracy-nudge intervention. Psychological science, 31(7), 770-780. https://doi.org/10.1177/0956797620939054

Krakowska, M. (2020). Information behavior in crisis situations. Zagadnienia Informacji Naukowej, 58(2A(116A)), 61–85. https://doi.org/10.36702/zin.716

Kreps, G. L., & Maibach, E. W. (2008). Transdisciplinary Science: The Nexus Between Communication and Public Health. Journal of Communication, 58(4), 732–748. https://doi.org/10.1111/j.1460-2466.2008.00411.x

Kreuter, M. W., & Wray, R. J. (2003). Tailored and Targeted Health Communication: Strategies for Enhancing Information Relevance. American Journal of Health Behavior, 27(1), 227–232. https://doi.org/10.5993/ajhb.27.1.s3.6

Kunda, Z. (1990). The case for motivated reasoning. Psychological Bulletin, 108(3), 480–498. https://doi.org/10.1037/0033-2909.108.3.480

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1996). Trust in large organizations. https://doi.org/10.3386/w5864

Lazer, D. M., Baum, M. A., Benkler, Y., Berinsky, A. J., Greenhill, K. M., Menczer, F., ... & Zittrain, J. L. (2018). The science of fake news. Science, 359(6380), 1094-1096. https://doi.org/10.1126/science.aao2998

Lewandowsky, S., Gignac, G. E., & Oberauer, K. (2013). The role of conspiracist ideation and worldviews in predicting rejection of science. PloS one, 8(10), e75637. https://doi.org/10.1371/journal.pone.0075637

Lewicki, R. J., McAllister, D. J., & Bies, R. J. (1998). Trust and distrust: New relationships and realities. Academy of management Review, 23(3), 438-458. https://doi.org/10.5465/amr.1998.926620

Lincoln, Y., & Guba, E. G. (1985). Lincoln, Yvonna, and Egon G. Guba, Naturalistic Inquiry. Beverly Hills, CA: Sage, 1985.

Löfstedt, R., & Cvetkovich, G. (Eds.). (1999). Social trust and the management of risk. Routledge. https://doi.org/10.4324/9781315071350

Luhmann, N. (1979). Trust and Power. http://ci.nii.ac.jp/ncid/BB25360200

Luhmann, N. (1989). Ecological communication. University of Chicago Press.

Mahrt, M. (2019). Beyond Filter Bubbles and Echo Chambers: The Integrative Potential of the Internet. 5, 5, 246. https://doi.org/10.17174/dcr.v5.0

Marco-Franco, J. E., Pita-Barros, P., Vivas-Orts, D., González-de-Julián, S., & Vivas-Consuelo, D. (2021). COVID-19, Fake News, and Vaccines: Should Regulation Be Implemented?. International journal of environmental research and public health, 18(2), 744. https://doi.org/10.3390/ijerph18020744

Marien, S., & Hooghe, M. (2011). Does political trust matter? An empirical investigation into the relation between political trust and support for law compliance. European journal of political research, 50(2), 267-291. https://doi.org/10.1111/j.1475-6765.2010.01930.x

Martínez-Mesa, J., González-Chica, D. A., Duquia, R. P., Bonamigo, R. R., & Bastos, J. L. (2016). Sampling: how to select participants in my research study?. Anais brasileiros de dermatologia, 91, 326-330. https://doi.org/10.1590/abd1806-4841.20165254

Mayer, R. C., Davis, J. H., & Schoorman, F. D. (1995). An integrative model of organizational trust. Academy of management review, 20(3), 709-734. https://doi.org/10.5465/amr.1995.9508080335

McGowan BS, Wasko M, Vartabedian BS, Miller RS, Freiherr DD, Abdolrasulnia M. Understanding the factors that influence the adoption and meaningful use of social media by physicians to share medical information. J Med Internet Res. 2012;14(5):e117. doi: 10.2196/jmir.2138. http://www.jmir.org/2012/5/e117/

Mechanic, D., & Barber, B. (1996). The Logic and Limits of Trust. Contemporary Sociology, 25(4), 455. https://doi.org/10.2307/2077058

Metzger, M. J., Flanagin, A. J., & Medders, R. B. (2010). Social and Heuristic Approaches to Credibility Evaluation Online. Journal of Communication, 60(3), 413–439. https://doi.org/10.1111/j.1460-2466.2010.01488.x

Metzger, M. J., & Flanagin, A. J. (2013). Credibility and trust of information in online environments: The use of cognitive heuristics. Journal of Pragmatics, 59, 210–220. https://doi.org/10.1016/j.pragma.2013.07.012

Miller, M. K., Clark, J. D., & Jehle, A. (2015). Cognitive Dissonance Theory (Festinger). The Blackwell Encyclopedia of Sociology. https://doi.org/10.1002/9781405165518.wbeosc058.pub2

Morse, B., Grépin, K. A., Blair, R. A., & Tsai, L. (2016). Patterns of demand for non-Ebola health services during and after the Ebola outbreak: panel survey evidence from Monrovia, Liberia. BMJ global health, 1(1), e000007. https://doi.org/10.1136/bmjgh-2015-000007

Nakov, P., Corney, D., Hasanain, M., Alam, F., Elsayed, T., Barrón-Cedeño, A., Papotti, P., Shaar, S., & Da San Martino, G. (2021). Automated fact-checking for assisting human fact-checkers. Proceedings of the Thirtieth International Joint Conference on Artificial Intelligence. https://doi.org/10.24963/ijcai.2021/619

Nickerson, R. S. (1998). Confirmation Bias: A Ubiquitous Phenomenon in Many Guises. Review of General Psychology, 2(2), 175–220. https://doi.org/10.1037/1089-2680.2.2.175

Nielsen, R., Fletcher, R., Newman, N., Brennen, J., & Howard, P. (2020). Navigating the 'infodemic': How people in six countries access and rate news and information about coronavirus. Reuters Institute for the Study of Journalism.

Nyhan, B., Porter, E., & Wood, T. J. (2022). Time and skeptical opinion content erode the effects of science coverage on climate beliefs and attitudes. Proceedings of the National Academy of Sciences of the United States of America, 119(26). https://doi.org/10.1073/pnas.2122069119

Nyhan, B., & Reifler, J. (2010). When corrections fail: The persistence of political misperceptions. Political Behavior, 32(2), 303-330. https://doi.org/10.1007/s11109-010-9112-2

Ognyanova, K. (2019). The social context of media trust: A network influence model. Journal of Communication, 69(5), 539-562. https://doi.org/10.1093/joc/jqz031

Owen, W. F. (1984). Interpretive themes in relational communication. Quarterly Journal of Speech, 70(3), 274-287. https://doi.org/10.1080/00335638409383697

Pew Research Center. (2021). Social Media Fact Sheet. Retrieved from https://www.pewresearch.org/internet/fact-sheet/social-media/

Pennycook, G., McPhetres, J., Zhang, Y., Lu, J. G., & Rand, D. G. (2020). Fighting COVID-19 Misinformation on Social Media: Experimental Evidence for a Scalable Accuracy-Nudge Intervention. Psychological Science, 31(7), 770–780. https://doi.org/10.1177/0956797620939054

Pennycook, G., Cannon, T. D., & Rand, D. G. (2018). Prior exposure increases perceived accuracy of fake news. Journal of Experimental Psychology: General, 147(12), 1865–1880. https://doi.org/10.1037/xge0000465

Pennycook, G., & Rand, D. G. (2021). The psychology of fake news. Trends in cognitive sciences, 25(5), 388-402. https://doi.org/10.1016/j.tics.2021.02.007

Pennycook, G., & Rand, D. G. (2019). Lazy, not biased: Susceptibility to partisan fake news is better explained by lack of reasoning than by motivated reasoning. Cognition, 188, 39-50. https://doi.org/10.1016/j.cognition.2018.06.011

Perry, R. W., & Lindell, M. K. (1997). Principles for Managing Community Relocation as a Hazard Mitigation Measure. Journal of Contingencies and Crisis Management, 5(1), 49–59. https://doi.org/10.1111/1468-5973.00036

Petty, R. E., & Cacioppo, J. T. (1986). The Elaboration Likelihood Model of Persuasion. In Advances in experimental social psychology (pp. 123–205). https://doi.org/10.1016/s0065-2601(08)60214-2

Potter, W. (2004). Theory of Media Literacy: A Cognitive Approach. https://doi.org/10.4135/9781483328881

Porter, E., & Wood, T. J. (2021). The global effectiveness of fact-checking: Evidence from simultaneous experiments in Argentina, Nigeria, South Africa, and the United Kingdom. Proceedings of the National Academy of Sciences of the United States of America, 118(37). https://doi.org/10.1073/pnas.2104235118

Quinn, S. C., Parmer, J., Freimuth, V. S., Hilyard, K. M., Musa, D., & Kim, K. H. (2013). Exploring communication, trust in government, and vaccination intention later in the 2009 H1N1 pandemic: results of a national survey. Biosecurity and bioterrorism: biodefense strategy, practice, and science, 11(2), 96-106. https://doi.org/10.1089/bsp.2012.0048

Renn, O., & Levine, D. (1991). Credibility and trust in risk communication. In Springer eBooks (pp. 175–217). https://doi.org/10.1007/978-94-009-1952-5_10

Reyes, L. M., Ortiz, L., Abedi, M., Luciano, Y., Ramos, W., & Reyes, P. J. D. J. (2021). Misinformation on COVID-19 origin and its relationship with perception and knowledge about social distancing: A cross-sectional study. Plos one, 16(3), e0248160. https://doi.org/10.1371/journal.pone.0248160

Rogers, E. M. (1962b). Diffusion of Innovations. https://blogs.unpad.ac.id/teddykw/files/2012/07/Everett-M.-Rogers-Diffusion-of-Innovations.pdf

Roozenbeek, J., Schneider, C. R., Dryhurst, S., Kerr, J., Freeman, A. L., Recchia, G., ... & Van Der Linden, S. (2020). Susceptibility to misinformation about COVID-19 around the world. Royal Society open science, 7(10), 201199. https://doi.org/10.1098/rsos.201199

Rosenstock, I. M. (1974). The Health Belief Model and Preventive Health Behavior. Health Education Monographs, 2(4), 354–386. https://doi.org/10.1177/109019817400200405

Rusch, T., Han, Y., Liang, D., Hopkins, A.R., Lawrence, C.V., Maoz, U., Paul, L.K., Stanley, D., Adolphs Alvarez Camplisson Harrison Hien Lan Lin L, R.R., Adolphs, R., Alvarez, R.M., Camplisson, I., Harrison, L.A., Hien, D., Lan, T., Lin, C., López-Castro, T., Nizzic, M., Golden, A.R., Wahle, I., & Yaffe, G. (2023). COVID-Dynamic: A large-scale longitudinal study of socioemotional and behavioral change across the pandemic. Scientific Data, 10.

Saechang, O., Yu, J., & Li, Y. (2021). Public Trust and Policy Compliance during the COVID-19 Pandemic: The Role of Professional Trust. Healthcare, 9(2), 151. https://doi.org/10.3390/healthcare9020151

Savolainen, R. (2007). Information Behavior and Information Practice: Reviewing the "Umbrella Concepts" of Information-Seeking Studies. □the □Library Quarterly, 77(2), 109–132. https://doi.org/10.1086/517840

Scheinfeld, E., & Voorhees, H. L. (2022). How Social Media, FoMO, and Isolation influence our perceptions of others who "break the rules". Social Media+ Society, 8(2), 20563051221103841. https://doi.org/10.1177/20563051221103841

Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach. John wiley & sons. https://doi.org/10.1108/lodj-06-2013-0079

Shareef, M. A., Mukerji, B., Dwivedi, Y. K., Rana, N. P., & Islam, R. (2019). Social media marketing: Comparative effect of advertisement sources. Journal of Retailing and Consumer Services, 46, 58-69. https://doi.org/10.1016/j.jretconser.2017.11.001

Sherman, L. E., Payton, A. A., Hernandez, L. M., Greenfield, P. M., & Dapretto, M. (2016). The Power of the Like in Adolescence: Effects of Peer Influence on Neural and Behavioral Responses to Social Media. Psychological science, 27(7), 1027–1035. https://doi.org/10.1177/0956797616645673

Siegrist, M., & Cvetkovich, G. (2000). Perception of hazards: The role of social trust and knowledge. Risk analysis, 20(5), 713-720. https://doi.org/10.1111/0272-4332.205064

Siegrist, M., & Zingg, A. (2014). The role of public trust during pandemics. European psychologist. https://doi.org/10.1027/1016-9040/a000169

Slovic, P. (1993). Perceived Risk, Trust, and Democracy. Risk Analysis, 13(6), 675–682. https://doi.org/10.1111/j.1539-6924.1993.tb01329.x

Smith, S., Smith, S., & Ajayi, A. (2020). Content analysis of mass media reportage on coronavirus-19 (COVID-19) in Nigeria from six widely circulated Nigerian newspapers. Journal of Studies in Social Sciences and Humanities, 6(3), 88-99.

Social Media Use in 2021. Pew Research Center: Internet, Science & Tech, Pew Research Center, 7 Apr. 2021, www.pewresearch.org/internet/2021/04/07/social-media-use-in-2021/.

Spradley, B. W. (1980). Managing change creatively. JONA: The Journal of Nursing Administration, 10(5), 32-36. https://doi.org/10.1097/00005110-198005000-00007

Sturgis, P., & Jennings, W. (2020). Was there a 'Youthquake'in the 2017 general election?. Electoral Studies, 64, 102065. https://doi.org/10.1016/j.electstud.2019.102065

Strauss, A., & Corbin, J. (1998). Basics of qualitative research techniques. https://doi.org/10.4135/9781452230153

Stromer-Galley, J., Rossini, P., Hemsley, J., Bolden, S. E., & McKernan, B. (2021). Political messaging over time: A comparison of US presidential candidate Facebook posts and tweets in 2016 and 2020. Social Media+ Society, 7(4), 20563051211063465. https://doi.org/10.1177/20563051211063465

Strömbäck, J., Tsfati, Y., Boomgaarden, H., Damstra, A., Lindgren, E., Vliegenthart, R., & Lindholm, T. (2020). News media trust and its impact on media use: Toward a framework for future research. Annals of the International Communication Association, 44(2), 139-156. https://doi.org/10.1080/23808985.2020.1755338

Sundar, S.S. (2007). The MAIN Model: A Heuristic Approach to Understanding Technology Effects on Credibility.

Swire-Thompson, B., & Lazer, D. (2020). Public health and online misinformation: challenges and recommendations. Annu Rev Public Health, 41(1), 433–451. https://doi.org/10.1146/annurev-publhealth-040119-094127

Tsfati, Y., & Cappella, J. N. (2003). Do People Watch what they Do Not Trust? Communication Research, 30(5), 504–529. https://doi.org/10.1177/0093650203253371

Turner, K. L., & Makhija, M. V. (2012). The role of individuals in the information processing perspective. Strategic Management Journal, 33(6), 661–680. https://doi.org/10.1002/smj.1970

Van Bavel, J. J., Baicker, K., Boggio, P. S., Capraro, V., Cichocka, A., Cikara, M., Crockett, M. J., Crum, A. J., Douglas, K. M., Druckman, J. N., Drury, J., Dube, O., Ellemers, N., Finkel, E. J., Fowler, J. H., Gelfand, M., Han, S., Haslam, S. A., Jetten, J., . . . Willer, R. (2020). Using social and behavioural science to support COVID-19 pandemic response. Nature Human Behaviour, 4(5), 460–471. https://doi.org/10.1038/s41562-020-0884-z

Van der Linden S. (2022). Misinformation: susceptibility, spread, and interventions to immunize the public. Nature medicine, 28(3), 460–467. https://doi.org/10.1038/s41591-022-01713-6

Van Der Meer, T. G. L. A., & Jin, Y. (2019). Seeking Formula for Misinformation Treatment in Public Health Crises: The Effects of Corrective Information Type and Source. Health Communication, 35(5), 560–575. https://doi.org/10.1080/10410236.2019.1573295

Van der Weerd, W., Timmermans, D. R., Beaujean, D. J., Oudhoff, J., & Van Steenbergen, J. E. (2011). Monitoring the level of government trust, risk perception and intention of the general public to adopt protective measures during the influenza A (H1N1) pandemic in the Netherlands. BMC public health, 11(1), 1-12. https://doi.org/10.1186/1471-2458-11-575

Van Scoy, L. J., Snyder, B., Miller, E. L., Toyobo, O., Grewel, A., Ha, G., ... & Lennon, R. P. (2021). Public anxiety and distrust due to perceived politicization and media sensationalism during early COVID-19 media messaging. Journal of Communication in Healthcare, 14(3), 193-205. https://doi.org/10.1080/17538068.2021.1953934

Vardavas, C., Odani, S., Nikitara, K., El Banhawi, H., Kyriakos, C., Taylor, L., & Becuwe, N. (2021). Public perspective on the governmental response, communication and trust in the governmental decisions in mitigating COVID-19 early in the pandemic across the G7 countries. Preventive Medicine Reports, 21, 101252. https://doi.org/10.1016/j.pmedr.2020.101252

Viswanath, K., & Kreuter, M. W. (2007). Health Disparities, Communication Inequalities, and eHealth. American Journal of Preventive Medicine, 32(5), S131–S133. https://doi.org/10.1016/j.amepre.2007.02.012

Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. Science, 359(6380), 1146-1151. https://doi.org/10.1126/science.aap9559

Vraga, E. K., & Bode, L. (2022). Correcting What's True: Testing Competing Claims About Health Misinformation on Social Media. American Behavioral Scientist, 00027642221118252. https://doi.org/10.1177/00027642221118252

Wagner, G., Nussbaumer-Streit, B., Greimel, J., Ciapponi, A., & Gartlehner, G. (2017). Trading certainty for speed-how much uncertainty are decisionmakers and guideline developers willing to accept when using rapid reviews: an international survey. BMC medical research methodology, 17, 1-8. https://doi.org/10.1186/s12874-017-0406-5

Walter, D., Böhmer, M. M., Reiter, S., Krause, G., & Wichmann, O. (2012). Risk perception and information-seeking behaviour during the 2009/10 influenza A (H1N1) pdm09 pandemic in Germany. Eurosurveillance, 17(13). https://doi.org/10.2807/ese.17.13.20131-en

Wardle, C., & Derakhshan, H. (2017). Information disorder: Toward an interdisciplinary framework for research and policymaking. Strasbourg: Council of Europe 27, 1-107.

Wilkins, C. H. (2018). Effective Engagement Requires Trust and Being Trustworthy. Medical Care, 56(Suppl 1), S6–S8. https://doi.org/10.1097/mlr.0000000000000953

Witteman, H. O., & Zikmund-Fisher, B. J. (2012). The defining characteristics of Web 2.0 and their potential influence in the online vaccination debate. Vaccine, 30(25), 3734-3740. https://doi.org/10.1016/j.vaccine.2011.12.039

Wong, L. P., & Sam, I. C. (2010). Public sources of information and information needs for pandemic influenza A (H1N1). Journal of community health, 35, 676-682. https://doi.org/10.1007/s10900-010-9271-4

Xu, Y., Lin, G., Spada, C., Zhao, H., Wang, S., Chen, X., ... & Zeng, Y. (2021). Public knowledge, attitudes, and practices behaviors towards coronavirus disease 2019 (COVID-19) during a national epidemic—China. Frontiers in public health, 9, 638430. https://doi.org/10.3389/fpubh.2021.638430

Yaqub, W., Kakhidze, O., Brockman, M. L., Memon, N., & Patil, S. (2020, April). Effects of credibility indicators on social media news sharing intent. In Proceedings of the 2020 chi conference on human factors in computing systems (pp. 1-14). https://doi.org/10.1145/3313831.3376213

You, Y., Ma, D., & Chen, C. (2023). Public Trust During a Public Health Crisis: Evaluating the Immediate Effects of the Pandemic on Institutional Trust. Journal of Chinese Political Science/Chinese Journal of Political Science, 29(1), 1–29. https://doi.org/10.1007/s11366-023-09874-y

Zeng, X., Abumansour, A. S., & Zubiaga, A. (2021). Automated Fact-checking: A survey. Language and Linguistics Compass, 15(10). https://doi.org/10.1111/lnc3.12438

Zhang, X., Wen, D., Liang, J., Lei, J. (2020). How the public uses social media wechat to obtain health information in China: a survey study. BMC Medical Informatics and Decision Making, 20(1), 1-10. https://doi.org/10.1186/s12911-017-0470-0

Zhao, E., Wu, Q., Crimmins, E. M., & Ailshire, J. A. (2020). Media trust and infection mitigating behaviours during the COVID-19 pandemic in the USA. BMJ Global Health, 5(10), e003323. https://doi.org/10.1136/bmjgh-2020-003323

Zingg, A., & Siegrist, M. (2012). Measuring people's knowledge about vaccination: developing a one-dimensional scale. Vaccine, 30(25), 3771-3777. https://doi.org/10.1016/j.vaccine.2012.03.014

APPENDIX A: ELIGIBILITY & DEMOGRAPHIC SURVEY

Eligibility: must meet all four criteria for the Interview

(a) be above the age of 18 years old.

(b) currently live in the United States.

(c) Did you fact-check during the COVID-19 pandemic? If so, how? If not, why?

(d) Reside outside any European Union (EU) country.

APPENDIX B: NARRATIVE INTERVIEW GUIDE

Greeting/Small Talk to Build Rapport

First, I want to thank you for your willingness to participate in this study. I appreciate your taking the time to meet with me. There are no right or wrong answers; my goal is to understand your experiences with social media platforms and fact-checking organizations during the COVID-19 crisis. Therefore, I would like to hear about your experience in as much detail as you feel comfortable sharing. Our conversation will last about 30 minutes, but if you would like it to end at any time, please let me know. Please only feel compelled to share information you are comfortable sharing, and please also feel free to share in as much detail as you feel comfortable. I understand that finding reliable sources of information during the COVID-19 crisis is vital. Please share how you navigated various social media platforms and fact-checking organizations to gather information about the pandemic. Were there any specific challenges or successes you encountered while seeking information? I will be listening as closely as I can and taking brief notes.

To help me listen, I will audio-record you with your consent. This way, I can devote my full attention to you, and later, I can review all that you told me today. I will have some follow-up questions to ask. I have a consent form that provides more details about the conversation I want to have with you.

Please read through the consent form and give verbal consent.

Start recording audio now.

Do you have any questions before we begin? As you know, I am particularly interested in your experiences sourcing information during the pandemic and how it has impacted your decision-making process. Additionally, I would like to know if you faced any challenges in

accessing reliable information and how you overcame them. This information will help me comprehensively understand information sharing during times of crisis.

During the interview, floating prompts (e.g., “Can you tell me more about...?") (McCracken, 1988) will also be used to encourage the participant to expand on events or to provide more information about a particular aspect of their life. These prompts help to ensure that the interview stays focused and that all relevant information is captured. Additionally, the interviewer should actively listen and show genuine interest in the interviewee's story, which can help create a comfortable and open environment for sharing. The interviewer will move on to the next question only when the participant has finished talking.Interview Questions

1. Can you share an experience where you encountered information related to COVID-19 that you later found needed to be corrected? How did you initially come across this information, and what made you realize it was misinformation?
2. How would you describe the role of fact-checking organizations in your information-seeking behavior during the COVID-19 pandemic? Did their efforts impact your trust in specific information sources or platforms?
3. Can you describe how correcting your understanding of widely believed COVID-19 information by a fact-check affected your perceptions and actions moving forward?
4. Have you ever encountered a situation where you hesitated to accept a fact-check related to COVID-19? What influenced this hesitation?
5. Could you describe a scenario where you actively shared a fact-checked piece of COVID-19 information with someone else? How did the recipient react, and did it influence their perceptions?

6. How do you think the trustworthiness of information sources impacts collective responses or attitudes toward COVID-19-related information in society?
7. Could you share a personal experience where you encountered a fact-check or correction about COVID-19 information? How did you initially respond to it, and did any factors influence your acceptance or rejection of the fact-check?
8. Could you describe any specific misinformation about COVID-19 that you initially believed but later discovered to be false due to fact-checking efforts? How did this impact your perception of the information source?
9. How would you describe your use of fact-checking websites or organizations for COVID-19-related information during the pandemic?
10. Did you find fact-checking organizations' messaging and corrections accessible and understandable during the COVID-19 pandemic? If not, what improvements would you suggest?
11. Can you describe a situation where you encountered fact-checking contradicting information you previously believed about COVID-19? How did you react to this discrepancy?
12. Can you recall an instance where your trust in a particular information source influenced your belief in COVID-19-related misinformation? How did this impact your subsequent actions or opinions?
13. How would you describe the relationship between trust in different information sources and an individual's vulnerability to believing COVID-19 misinformation?