

**FAKE NEWS AND COVID-19 INFORMATION VERIFICATION
PRACTICES AMONGST SOCIAL MEDIA USERS AND
NON-USERS IN ACCRA.**

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DECLARATION

I, **DERRICK M. DEGBOE**, hereby declare that this thesis is an original research undertaken by me. Except for references to other people's work which have been duly acknowledged, this thesis has neither in part nor in whole been presented for another degree elsewhere.

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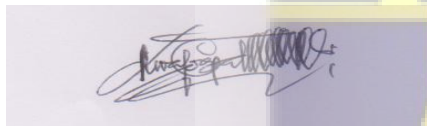


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ABSTRACT

It has been widely observed by the World Health Organization that the Covid-19 pandemic simultaneously exists with an “infodemic”, a term adopted to mean the abundance of misinformation about the Covid-19 pandemic. This study sought to investigate how Ghanaian social media users and non-users in Accra verified the views they held about the Covid-19 virus and pandemic. To guide the fulfilment of this objective, the study used Mead’s theory of self-indication and Parson’s social action theory to explain why people held misinformed views about the Covid-19 pandemic, why they chose to verify certain pieces of information whilst acting on others without verification, and how they verified information. The study was qualitative in nature and data was obtained through in-depth interviews with twenty participants in Accra, ten of whom were social media users and ten of whom were non-social media users. The study found that in addition to holding medically-endorsed views on Covid-19, most participants held views that have been dismissed as inaccurate at best or harmful at worst. Some of these views were that the Covid-19 virus is a deliberate human creation, that the sun provided protection for Ghanaians against Covid-19, and that local remedies such as neem tree and saline were effective in protecting one from contracting the virus and for treatment. The main reason for the prevalence of misinformation amongst participants was that most participants usually shared any received information with others without verifying because they trusted the source of information. Participants only verified information on Covid-19 if the information was opposed to their existing views, had substantial consequences if false or true, or due to a recognition that misinformation is rampant. For participants who used social media, checking the internet for concordant information was the main means of verification. For participants who did not use social media, verification mainly occurred by waiting for the information to be corroborated by traditional media sources.

DEDICATION

Dedicated to my parents Olivia Gasu Tsetse and Johnson Degboe (deceased) both retired teachers who taught me the value of education from an early age.



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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The current ubiquity of fake news and misinformation has led the World Health Organization (WHO) to assert that the Covid-19 pandemic simultaneously exists with an infodemic. In the words of the Director-General of the WHO, Tedros Adhanom Ghebreyesus, “we’re not just fighting an epidemic; we’re fighting an infodemic” WHO (2020). An infodemic is characterised as “too much information including false or misleading information in digital and physical environments during a disease outbreak.”¹

Most scholars attribute the Covid-19 infodemic to the use of social media, which are platforms that allow users to produce and circulate information without much organizational checks (Casero-Ripollés, 2020; Wang, McKee, Torbica, & Stuckler, 2019; González-Padilla & Tortolero-Blanco, 2020). Casero-Ripollés (2020) for instance found that social media platforms became the “main circulation channel for fake news during the Coronavirus outbreak” (p. 8).

Whilst social media produces the most amount of misinformation, mainstream media such as Television and newspapers are also sources of Covid-19 misinformation (Al-Zaman, 2022). In assessing the sources of Covid-19 misinformation across 138 countries, Al-Zaman (2022) found that mainstream media (Television, newspapers) produced 3.29% of Covid-19 misinformation whilst social media produced 84.94% of Covid-19 misinformation.

¹ https://www.who.int/health-topics/infodemic#tab=tab_1

The WHO's description of the current wave of Covid-19 misinformation as an infodemic reflects the globalized nature of Covid-19 misinformation. For instance, the idea that Covid-19 is caused by 5G technology, exists in both Europe (Ahmed, Vidal-Alaball, Downing, & Seguí, 2020) and in sub-Saharan Africa (Ovenseri-Ogbomo, et al., 2020). Similarly, Donald Trump's tweets and comments on the effectiveness of hydroxychloroquine and chloroquine in treating Covid-19, increased google searches and purchase of hydroxychloroquine and chloroquine (Niburski & Niburski, 2020), and led to chloroquine poisoning in Nigeria (Busari & Adebayo, 2020).

Notwithstanding the globalized nature of Covid-19 misinformation, some pieces of misinformation appear to be more pronounced in certain parts of the world. For instance, the belief that Blacks are more resistant to Covid-19 than Whites (Osuagwu, et al., 2020; Tabong & Segtub2, 2021) and that the sun protects Africans from contracting the Covid-19 virus (Africa Center for Strategic Studies, 2020; Ahinkorah, Ameyaw, Hagan, Seidu, & Schack, 2020), are arguably more prevalent in sub-Saharan Africa than in the West.

The prevalence of fake news and misinformation during the Covid-19 pandemic is merely a recurrence of a global and persistent phenomenon of misinformation being disseminated during the outbreak of diseases. During the Zika epidemic between 2015 and 2016 for instance, rumours were found to be shared three times more than verified information (Sommarivaa, Vamosa, Mantzarlisb, Đàoa, & Tyson, 2018). Similarly, and during the Ebola outbreak in 2014, medically-pronounced-misinformation such as salt water being effective in preventing and treating Ebola were found to spread more rapidly than medically verified information (Oyeyemi, Gabarron, & Wynn, 2014).

When misinformation spreads during pandemic contexts, there is usually a concomitant increase in the rates of infection, an increase in health complications, or an increase in other

problems (Huremović, 2019). For instance, anti-vaccine sentiments effectuated by the proliferation of misinformation can lead to low vaccination rates and a consequent higher infection rates (Sanders, 2020; Uscinski, et al., 2020). In Europe, the misinformed belief that Covid-19 is caused by advancements in 5G technology resulted in the destruction of 5G towers. In Africa, the belief that chloroquine could treat Covid-19 led to chloroquine poisoning (Busari & Adebayo, 2020).

Consequently, there is a recognition that “infodemic management is an integral part of pandemic management” (Lohiniva, Nurzhynsk, Hudi, Anim, & Aboagye, 2022), Governments, global health institutions among others, to institute measures to curb the extant wave of covid-19 misinformation (Kolluri & Murthy, 2021). The WHO for instance, created a myth-busting platform² to debunk common Covid-19 myths, and Twitter is actively removing Covid-19 misinformation from its platform (Rosenberg, Syed, & Rezaie, 2020).

Against the backdrop that there is a proliferation of misinformation about Covid-19 and the scholarly recognition that information verification is an essential mechanism for curbing the spread of misinformation (Sun, 2022), this study examined the views Ghanaians hold about the Covid-19 pandemic and the verification processes they employed prior to accepting those views as accurate. More specifically, and considering the scholarly data on how social media aids the proliferation of misinformation (Casero-Ripollés, 2020; Wang, McKee, Torbica, & Stuckler, 2019; González-Padilla & Tortolero-Blanco, 2020), this study sought to examine how Ghanaian social media users and non-users verified their views on the cause of Covid-19, effective treatment and prevention methods.

The study is guided by the social action theory and the theory of self-indication. These two theories help explain why people held misinformed views about the Covid-19 pandemic, why

² <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/myth-busters>

they chose to verify certain pieces of information whilst acting on others without verification, and how they verified information.

1.2 Statement of the problem:

During and post the United States presidential elections in 2016, researchers have been greatly interested in studying the effects of misinformation on public opinion. This period saw the popularization of the term “fake news” to denote “fabricated information that is patently false” (Molina, Sundar, Le, & Lee, 2021, p. 180). Some scholars contended that not all false information constitutes fake news and that the term fake news should be reserved for false information intentionally dissemination to mislead readers by assuming the form of legitimate news (Allcott & Gentzkow, 2017; Gelfert, 2018; Tandoc, et al., 2018; Molina, Sundar, Le, & Lee, 2021).

However, all scholarly conceptions of fake news recognize that a piece of information must be false to qualify as fake news (Gelfert, 2018; Tandoc, et al., 2018). Consequently, and in a bid to cover both deliberately disseminated misinformation in the form of news and other forms of misinformation, this study uses “fake news” as a “catch-all term” (Lilleker, 2017, p. 1) to represent false information or misinformation, irrespective of the intention behind its dissemination.

In the wake of the Covid-19 pandemic, there has been an extensive scholarly focus on how fake news and misinformation exacerbate the spread of the pandemic and how it undermines health agencies (Ahinkorah, Ameyaw, Jr., Seidu, & Schack, 2020; O'Connor & Murphy, 2020). To help curb the menace of fake news during the Covid-19 pandemic, some scholars have sought to leverage machine learning technology to help people verify Covid-19 related Covid-19-related information (Kolluri & Murthy, 2021), some have explored how preemptively alerting people on the pervasiveness of Covid-19 misinformation can help them

build “resistance” to misinformation (Linden, Roozenbeek, & Compton, 2020), and others have examined the factors that influence the sharing of information without verification (Khan & Idris, 2019).

Despite the enormous scholarly research on curbing the Covid-19 infodemic, very little is still known about the factors that influence the verification of Covid-19 related information, how a person’s social relation with others influences trust in received information and verification behaviours, and how social context and expectations influence information verification behaviours. Further, and given the scholarly recognition that social media is the main source of Covid-19 misinformation (Al-Zaman, 2022), very little is known about how social media users differ in their information verification practices from non-social media users.

Consequently, this study seeks to fill these gaps in the literature by exploring the information-verification behaviours of Ghanaian social media users and non-users. In doing so, the study provides data on the factors that influence or hinder information verification and whether one’s sources of information affect their information verification behaviour.

1.3 Objectives of the Study

1.3.1 Main Objective:

The main objective of this study is to examine how Ghanaian social media users and non-users in Accra verify the views they hold about the Covid-19 pandemic.

1.3.2 Specific Objectives:

1. To explore the various views social media users hold about the Covid-19 pandemic.
2. To explore how social media users verified the views they hold about the Covid-19 pandemic.

3. To explore the various views non-social media users hold about the Covid-19 pandemic.
4. To explore how non-social media users verified the views they hold about the Covid-19 pandemic.

1.4 Significance of the Study

The first significance of this study is that it aids the formulation of macro-level policies geared toward curbing the Covid-19 infodemic and pandemic. As the study assesses the factors that increase the likelihood of people believing in fake news about Covid-19, governments and health agencies can target and eliminate those factors. Further, the views gathered about Covid-19, including treatment methods, and prevention methods among others can inform policy formulation in meaningful ways.

In addition, this study contributes enormously to the scant literature on fake news in Ghana. According to Ahiabenu et al (2018), literature on fake news is sparse in Ghana despite the prevalence of fake news. By examining the verification of news in Ghana, the views people hold about Covid-19 in a context characterised by the World Health Organization as being infodemic, and by assessing the factors that contribute to the believe in fake news amongst Ghanaian social media users and non-users, enormously contributes to the literature on fake news in Ghana.

Further, and by leveraging sociological theories such as social action theory and self-indication theory to discuss and analyse contemporary issues such as fake news, this study reiterates the importance of sociological analysis in understanding contemporary societies and human behaviour. For instance, the theory of social action as used in this study explains why individuals may believe in fake news and fail to verify information if they believe no severe social consequences would arise from such belief and failure to verify information.

1.5 Organization of the Study

This study is organized into six chapters. Chapter one of the study provides a background to the study, the main and specific objectives of the study, and the importance of the study in extending scholarly knowledge and in informing public health officials and to a large extent government on the continent of Africa and beyond, on how best to tackle medical misinformation on the Covid-19 pandemic.

Chapter two reviews relevant scholarly works on fake news, Covid-19 related misinformation, social media and Covid-19, and information verification practices. In addition, the chapter also presents the theoretical perspective used as the basis for the study.

Chapter three of this study outlines the methods that were used in conducting the research. These include discussions of data collection and analysis methods, sampling techniques and size, ethical considerations, inclusion and exclusion criteria among others.

In chapter four, the data collected from participants is presented in line with the main and specific objectives of this study. The key areas of analysis in this chapter includes views about Covid-19 amongst Ghanaians, information verification methods employed by social media users and non-social media users, how social relations affects an individual's efforts to ascertain the veracity of Covid-19 related information, and when information verification occurs, and how it occurs.

In chapter five, the findings presented in chapter four are discussed in line with relevant literature, the theories of social action and self-indication, and the main and specific objectives of this study.

Finally, chapter six summarizes the key findings in the study, draws some conclusions, states the limitations of this study, and provides some recommendations for further research in the field of fake news and information verification in Ghana.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction:

This section explores existing literature on the concept of fake news and why people may believe in fake news, misinformation during the Covid-19 pandemic, information verification in the context of a Covid-19 infodemic, and social media during the Covid-19 pandemic. The section also presents a review of the two theories, thus the theory of self-indication and the theory of social action, which would be used in understanding the information verification practices of participants and why participants held certain views.

2.2 Understanding Fake News

The term “fake news” has been an elusive term with a lot of (mis)characterizations (Himma-Kadakas, 2017; Lilleker, 2017; Gelfert, 2018). Lilleker (2017, p. 1) asserts that “fake news” has become “a catch-all term with multiple definitions” and Himma-Kadakas (2017, p. 26) also notes that the term fake news is “controversial and ambiguous”. However, scholars converge on the idea that misinformation is a core characteristic of fake news (Himma-Kadakas, 2017; Klein & Wueller, 2017; Lazer, et al., 2018; Tandoc et al., 2018; Tandoc, 2019; Pennycook & Rand, 2021). Lazer et al. (2018, p. 1094) for instance defined fake news as “fabricated information that mimics news media content in form but not in organizational process or intent”. According to Himma-Kadakas (2017, p. 26), fake news is “intentionally widely spread misinformation.” Allcott & Gentzkow (2017) similarly defined fake news as “news articles that are intentionally and verifiably false and could mislead reader.” Tandoc et al. (2018) characterized this version of fake news as “news fabrication”, and it involves “viral posts based on fictitious accounts made to look like news reports.”

Whilst scholars contend that misinformation in the form of satire, which is misinformation “designed to be humorous and overtly fake, and thus not intended to mislead” (Lilleker, 2017, p. 1), does not constitute fake news, satire and other similar content-forms can have the same effect as fake news, especially when its audience is oblivious of the intention behind such content (Allcott & Gentzkow, 2017). For example, a broadcast by Ronald Arbuthnott Knox in 1926 that London was under attack by communists misled listeners who tuned in late and did not hear the disclaimer at the start of the program that the broadcast was for entertainment purposes (Burkhardt, 2017). Essentially, when satirical content is shared on social media without disclaimers, such content may mislead readers. In line with this recognition, Allcott and Gentzkow (2017, p. 213) asserted that fake news includes “articles that originate on satirical websites but could be misunderstood as factual, especially when viewed in isolation on Twitter or Facebook feeds.”

There are several explanations for why people believe fake news. One explanation is that people are more likely to believe misinformation when it confirms or upholds what they already believe to be true or what they want to be true (Vallone et al., 1985; Allcott & Gentzkow, 2017; Lazer, et al., 2018; Pennycook et al., 2018; Pennycook & Rand, 2021). According to Lazer et al. (2018), research shows that

people prefer information that confirms their pre-existing attitudes (selective exposure), view information consistent with their pre-existing beliefs as more persuasive than dissonant information (confirmation bias), and are inclined to accept information that pleases them (desirability bias). Prior partisan and ideological beliefs might prevent acceptance of fact checking of a given fake news story

(Lazer, et al., 2018, p. 1095)

The findings of Allcott and Gentzkow’s (2017) on trust in news reports amongst Democrats and Republicans in the United States, gives credence to Lazer et al.’s (2018) assertion on confirmation and desirability bias. In Allcott and Gentzkow’s (2017) study, Democrats and

Republicans were found to be 15% more likely to believe ideologically inclined headlines (Allcott & Gentzkow, 2017). The implication of this confirmation or desirability bias in the context of Covid-19 is that if people already believe a set of actors have diametrically opposed interests to them, then any piece of information that claims that the Covid-19 virus was created by those set of actors, is likely to be believed as accurate. Similarly, methods of treatment already believed to be effective against non-Covid-19 ailments may similarly be believed to effective against the Covid-19 virus.

In addition, people are also more likely to believe in fake news when they receive that information from socially proximate sources (Kang et al., 2011; Tandoc, et al., 2018). Kang et al. (2011) posit that when people receive news online, they usually prefer to do so from sources that know; a replication of the traditional form of getting news where the media organizations are known. Thus, people are more likely to believe in fake news if it is shared by people in their social network (friends, family) than people outside. This study will explore this further by examining how social relations influence Ghanaians' efforts to verify Covid-19 related information.

People also believe fake news content they read from the internet because they consider the internet a credible source of information (Flanagin & Metzger, 2000; Jansen et al., 2009). Research findings from Flanagin and Metzger (2000) showed that people believed that internet news outlets are just as credible as radio, magazines, and television news outlets. Social media platforms, which are internet-based platforms for one-to-many communication (Carr & Hayes, 2015), are increasingly seen as "trusted sources of information, insights, and opinions." (Jansen, et al., 2009, p. 2186). Consequently, misinformation on internet would likely be believed as true because of the trust associated with the internet as a medium of information transmission.

In addition, people are more likely to believe fake news as true when they have had prior exposure to a similar fake news content (Pennycook, et al., 2018). In a study conducted by Pennycook et al.'s (2018), and in what they characterized as a familiarization stage, participants were initially familiarized with various news contents, both fake news and real news. Participants were then presented with novel fake news headlines and fake news headlines that were similar to those presented in the familiarization stage. Findings indicated that participants were more likely to judge subsequent fake news headlines as accurate if they had prior exposure to a similar content during the familiarization stage (Pennycook, et al., 2018). According to Pennycook et al. (2018),

nearly twice as many participants (92.1% increase, from 38 to 73 out of 949 total) judged the fake news headlines presented to them during the familiarization stage as accurate (mean accuracy rating above 2.5), compared to the stories presented to them for the first time in the assessment stage.

(Pennycook, et al., 2018, p. 18)

Given that proliferators of fake news utilize bots, “automated accounts impersonating humans” (Lazer et al., 2018, p. 1093), to post similar fake news contents particularly on social media (Desigaud et al., 2017; Shane, 2017; Pennycook, et al., 2018). Pennycook et al.'s (2018) findings intimate that most users of social media are likely to believe fake news because they may have encountered a similar piece of fake news in the past.

Furthermore, believe in fake news is a function of people's critical thinking and evaluation skills (Tandoc, Ling, et al., 2018). People only sought to verify news information if their insight, instinct, or wisdom told them to do so, otherwise they believed it without verification (Tandoc, Ling, et al., 2018). A social media user in speaking about how information on social media is verified before being believed, asserted “usually, we can all tell if the news is over-exaggerated or not. We are old enough to judge and think for ourselves” (Tandoc, Ling, et al.,

2018, p. 2754). Thus, individuals who cannot assess the veracity of news information using their own knowledge and analytical thinking abilities, are more likely to believe in fake news.

2.3 Fake News and Covid-19

In the context of Covid-19, there has been a surge in fake news and misinformation (Frenkel et al., 2020; Linden, Roozenbeek, & Compton, 2020; Moscadelli, et al., 2020; Naeem & Bhatti, 2021; O'Connor & Murphy, 2020; Apuke & Omar, 2021). Worryingly, fake news and misinformation on the Covid-19 pandemic quickly spread throughout the world because the internet and social media were the main platforms for its spread (Kim et al., 2020; Naeem et al., 2021). Thus, the same pieces of misinformation are likely to exist in several countries as citizens of those countries use the internet and social media platforms. For instance, the fact that purchases of chloroquine soared in Nigeria (Busari & Adebayo, 2020) and in Ghana (Tabong & Segtub, 2021) following the endorsement by Donald Trump (45th President of the United States) and Jair Bolsonaro (the 38th President of Brazil) on the internet, depicts the globalized nature of Covid-19 misinformation.

In explaining the reason behind the proliferation of fake news in the context of Covid-19, Moscadelli et al. (2020) asserted that due to uncertain and unanticipated nature of the Covid-19 virus, people were rendered helpless, making “any kind of explanation plausible and reasonable to the eyes of the general population” (Moscadelli, et al. 2020, p. 5851). Kim et al., (2020) similarly noted that the proliferation of fake news in the context of Covid-19 is because of the increased reliance on online information, as people sought to protect themselves from the Covid-19 virus.

Whilst fake news on Covid-19 is diverse, O'Connor and Murphy (2020) posit that they share a common pattern:

They claim to have inside information from, for example, a young researcher from Wuhan, a Taiwanese expert, or Dr Tim in Cork, but no reference is provided to support the alleged source. The tone is often alarmist, implying that if the suggested action is ignored, serious consequences will occur -“Please do this before it’s too late.” The message is intended to trigger panic and fear in the reader. This increases the likelihood that the message will be shared with family and friends.

(O’Connor & Murphy, 2020, p. 1)

Kasprak (2020a, para. 4) similarly notes that fake news messages usually attempt to justify their authenticity and medical basis by, for example, attributing it to “serious excellent advice by Japanese doctors”. Sometimes, fake statements are falsely attributed to political figures as a way of legitimizing it, and this was the case when Ghana’s president Nana Akufo Addo was alleged to have stated that the Covid-19 virus is “man-made” and vaccinations are for micro-chips implanting purposes (Goodman et al., 2020).

Prominent amongst the Covid-19 misinformation is that the virus was deliberately created by a research facility and deliberately spread to infect people (Andersen et al., 2020; Frenkel, et al., 2020; Kasprak, 2020b); or that the virus was caused by new advancements in 5G technology (Naeem & Bhatti, 2021). In terms of prevention of the Covid-19 virus, dominant ideas which later turned out to be false were that alcohol and garlic protected one from contracting the virus; keeping one’s throat moist would protect one from contracting the virus (MacGuill, 2020). Some people alleged that wearing a mask, an act sanctioned by the World Health Organization as essential for the prevention of the virus, exacerbated the virus (Linden, et al., 2020). In African countries, it was believed that the hot temperatures in Africa and the genetic make-up of Africans provided protection against the virus (Palma, 2020). In Ghana, some falsely believe that the leaves of the neem tree (*Azadirachta Indica*), hydroxychloroquine, the inhalation of the steam from boiled pawpaw (*Carica papaya*) among others, were effective against the Covid-19 virus (Tabong & Segtub, 2021).

Various scholars have studied the effects of fake news and misinformation in the context of Covid-19 (Busari & Adebayo, 2020; Kim, et al., 2020; Krause, et al., 2020; Linden, et al.,

2020; Waldrop et al., 2020). One key effect is that the believe in unverified information led to people failing to follow all health-protective behaviours (Allington et al., 2020). In Europe for instance, it was discovered that individuals who held conspiracy views about the Covid-19 pandemic were less likely to follow governmental guidelines on the prevention of the Covid-19 virus (Freeman, et al., 2020). Similarly, research in Canada showed that people exposed to misinformation were less likely to follow social distancing protocols (Bridgman, et al., 2020). The phenomenon where people fail to follow recommended guidelines may arise when people do not believe the virus exists, or when they believe that the persons recommending the health-protective behaviours have perverse incentives or are withholding some useful information.

In addition to failing to follow health guidelines, people may engage in non-recommended and risky practices upon encountering misinformation (Busari & Adebayo, 2020; Gharpure, et al., 2020). In the United States, a survey conducted amongst 502 adults found that thirty-nine percent of participants engaged in non-recommended high risk activities such as “washing food products with bleach, applying household cleaning or disinfectant products to bare skin, and intentionally inhaling or ingesting these product” (Gharpure, et al., 2020, p. 2946). In the middle east, the ingestion of methanol following a false circulation on the effectiveness of the poison led to the death of over 300 people (Associated Press, 2020). A similar case occurred in Nigeria when the misinformed view that chloroquine is effective in treating Covid-19 led to chloroquine poisoning (Busari & Adebayo, 2020). These deleterious consequences accruing from people’s adherence to misinformed views provides a strong justification for scholarly focus on the ways in which such misinformation can be curbed, which is the aim of this study.

Although there is sparse scholarly data on the effects of misinformation in Africa during the Covid-19 pandemic, except for the report on chloroquine poisoning in Nigeria (Busari & Adebayo, 2020), misinformation such as the sun providing Africans some protection against Covid (Africa Center for Strategic Studies, 2020) may cause people to be less vigilant in observing

official Covid-19 safety protocols. Essentially, this study, by exploring the views people hold about Covid-19, would be able to draw useful inferences on the effects of some misinformed views on health seeking behaviours.

2.4 Information Verification in the Context of Fake News

In the context of mass misinformation during the Covid-19 pandemic, scholars have acknowledged the importance of information verification in curbing the Covid-19 infodemic and its harmful consequences (Kolluri & Murthy, 2021; Sun, 2022; United Nations Zimbabwe, 2021; Xia et al., 2021). According to Sun (2022, p. 262) “even if misinformation is widely spread, it should not become a major concern if people are accustomed to verifying suspicious information before sharing or believing it”. Sun (2022) is thus intimating that fake news and misinformation only have an effect to the extent that they are believed, and not actually to the extent that they are shared.

In addition, the assumption underpinning Sun’s (2022) believe in the utility of information verification in mitigating the effects of misinformation is that even in the context of an infodemic, there exists information sources that can be trusted to contain true and scientifically-backed information. Usually, health organizations such as the WHO and the Johns Hopkins Coronavirus Resource Centre have been noted as authentic sources of information (Kolluri & Murthy, 2021; Sun, 2022). When people utilize non-reliable sources of information to verify a piece of information, there is a possibility that a piece of misinformation may be confirmed as accurate by the source used for verification. Thus, and beyond people deciding to verify a piece of information, the medium of verification chosen to verify information is as essential as the choice to verify.

There has been research on the factors that determine if people would make the choice to verify a piece of information before taking actions such as believing the information or sharing to

others (Tandoc, et al., 2018; Wenzel, 2019; Edgerly et al., 2020; Nee, 2019; Sun, 2022). Arguably, all the factors that cause people to believe in fake news and misinformation, such as confirmation bias (Lazer, et al., 2018) and the believe that information on the internet can be trusted (Kang et al., 2011; Tandoc, et al., 2018), impact the verification behaviour of people. For instance, if people believe information on the internet can be trusted, they are more likely to believe a piece of information posted on the internet as true, and not seek to further verify the information.

Further, another factor affecting people's decision to verify a piece of information is their subjective evaluation of the veracity of the piece of information (Tandoc, et al., 2018). Thus, when people think a piece of new information is accurate, perhaps due to previous encounters with similar pieces of information, experience, or ideological leanings (Edgerly, et al., 2020), then a choice may be made to not verify the information, and it is assumed to be true. Lazer et al. (2018) has, however, noted that fake news and misinformation thrive because people are less likely to fact check information once it confirms their pre-existing believes, which may itself be erroneous.

In addition, Sun (2022) found that people are likely to verify a piece information if they perceived that others may be susceptible to the effects of the piece of information being inaccurate (Sun, 2022). Thus, if a person believes that the proliferation of a piece of information may have deleterious health outcomes if the proliferated piece of information is false, then the person may seek to verify the piece of information. Arguably, and as an extension of Sun's (2022) findings, people may also verify information if the information requires them to take an action they evaluate to have negative impacts on them if the information turns out inaccurate.

Finally, the source of an information influences the decision to verify information (Tandoc, et al., 2018). The source a piece of information originated is sometimes used as a basis for believing that the piece of information is accurate because the source is trustworthy.

2.5 Social Media and Covid-19:

In recent times, individuals are increasingly getting interconnected through web platforms collectively referred to as social media (Boyd & Ellison, 2007; Asur & Huberman, 2010; Carr & Hayes, 2015; Greenwood et al., 2016; Allcott & Gentzkow, 2017; Fuchs, 2021). Facebook, a social media platform, had about 1.8 billion users in 2016, and Twitter, another social media platform, had about 400 million active users in 2016 (Allcott & Gentzkow, 2017). In the United States alone in 2016, 79% of all internet users used Facebook, 32% of internet users used Instagram, 24% of internet users used Twitter, 29% of internet users used LinkedIn, and 31% of internet users used Pinterest (Greenwood, et al., 2016). In Ghana, Statista (2022) reported that as at January 2022, there were about 8.8 million social media users in total. As of January 2020, the total number of social media users in Ghana was about 6 million (Kemp, 2020). Bannor, et al. (2017) and Sasu (2021) found that most Ghanaians are active on social media and in the third quarter of 2020, about 83.9% of Ghanaian internet users used WhatsApp, 70.8% used Facebook, 69.7% used YouTube among others (Sasu, 2021). Gyampo (2017) similarly highlighted the prevalence of social media in Ghana and acknowledged the popularity of WhatsApp and Facebook in Ghana.

Although there is no scholarly consensus on what constitutes social media (Carr & Hayes, 2015), there is a consensus that platforms such as Facebook, Instagram, and Twitter, are social media platforms (Carr & Hayes, 2015; Greenwood, et al., 2016; Bannor et al., 2017). What is common amongst these instances of social media is that they are internet based, allow people to self-generate content for the viewership of others, and the generation of content by users is

usually unregulated except for when such content violate the terms of use of these social media platforms.

Scholarly attempts at a definition of social media reflect the above common characteristics of social media platforms. Carr and Hayes (2015) for instance posited that social media consists of “internet-based channels that allow users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others.” Similarly, Gyampo (2017, p. 128) posited that social media “operates in a dialogic transmission system with many sources to many receivers in contrast with traditional media that operates under a monologist transmission model with one source to many receivers.” Gyampo’s (2017) conception of social media captures one distinguishing feature of social media noted by Kaplan and Haenlein (2010), which is the mass creation of content by all users of social media in a participatory and collaborative manner.

Whilst the content posted on social media is incredibly diverse, scholars have that noted social media platforms are increasingly being used for the dissemination of news and information (Jansen, Zhang, Sobel, & Chowdury, 2009; Hermida, 2010; Zúñiga et al., 2012; Sveningsson, 2015; Allcott & Gentzkow, 2017; Mellon & Prosser, 2017; Tandoc, et al., 2018). In capturing the contemporary usage of social media for news, Alemanno (2018, p. 1) succinctly asserted that “the days when social networks were dismissed as entertaining outlets for teenagers are long gone. Today they have become the primary medium over which we consume news, form our political identities, and spend a considerable portion of our time”. For instance, a lot of young people consider Twitter to be an immediately accessible source of news (Sveningsson, 2016) and Allcott and Gentzkow (2017) also found that some Americans spent about 38% of their overall news consumption time on social media consuming “news” (Allcott & Gentzkow, 2017). In Ghana, social media platforms are deemed more effective for the dissemination of

health-related information, because of the sheer number of Ghanaians who utilize the platform (Bannor, et al., 2017).

Perhaps a key reason for the increasing reliance on social media for news is that traditional media platforms such as the British Broadcasting Corporation (BBC) share news content on social media platforms as a way of reaching a wider audience (example the BBC's Twitter handle) (Hermida et al., 2012). In addition to, journalists are increasingly using social media to express opinions and go about their work of news reportage (Hermida, 2009; Hermida, 2010. Lasorsa, et al., 2012). Losarsa et al. (2012) used the term microblogging journalism to refer to the practice where journalists share short and instant information to their followers. These practices have been found to increase dependence on social media platforms for news (Losarsa et al., 2012).

In the context of the Covid-19 pandemic, social media platforms are widely used for accessing information on the Covid-19 virus and pandemic (Cuello-Garciaa, Perez-Gaxiolac, & Amelsvoort, 2020; González-Padilla & Tortolero-Blanco, 2020; Hussain, 2020; Wong, Ho, Olusanya, Antonini, & Lyness, 2021;). According to Wong et al. (2021, p. 256), various international health organizations and health experts share information on social media on the Covid-19 pandemic, and “international knowledge and guidelines have also been shared beyond geographical and language barriers.” Consequently, Ghanaians on social media can directly access information shared by other social media users, irrespective of geographical location of the user who shared the information. Further, any piece of misinformation on social media would equally be disseminated to a large group of Ghanaians.

Despite the recognition that social media helps in the dissemination of information, some information on social media about the Covid-19 pandemic have been found to be misleading, lacking scientific backing, or injurious to public health (González-Padilla & Tortolero-Blanco,

2020; Apuke & Omar, 2021; Naeem, Bhatti, & Khan, 2021; Wong, et al., 2021). In characterizing the spread of fake news and misinformation on social media, Gonzalez-Padilla and Tortolero-Blanco (2020, p. 2) asserts that “information shared on social media might “not be current, has not been subjected to peer review, is invalid, incorrect, not applicable to our environment, or even false”.

Mostly, the prevalence of misinformation and fake news on social media is because social media allow users “produce and share information at little or no cost” (Halpern et al., 2019, p. 215). Cost can be in the form of reputational damage, but the possibility that social media users can create fake accounts allows them to escape such cost. Also, cost can be financial, such as the cost of setting up a news broadcasting platform and hiring journalist, but social media users can reach millions of people without incurring this cost due to the very nature of social media platforms.

The prevalence of fake news and misinformation on social media seems to have more debilitating consequences in the Ghanaian context, mainly because misinformation on social media is likely to be adopted by traditional media platforms and reported as facts (Ahiabenu et al., 2018). According to Ahiabenu et al. (2018),

several media houses [in Ghana] rely on social media and online content in their news production processes. This situation poses a major risk since the use of social media and online content is now the norm in most newsrooms across the country. As a result, fake news is not only an online and social media occurrence since its influence on traditional media is now a reality.

(Ahiabenu, et al., 2018, p. 2)

The consequence of the utilization of social media content by traditional media outlets is that any misinformation shared on social media regarding Covid-19 may be reported by traditional media outlets to the non-social media population or to social media users who have not encountered such misinformation. However, the editorial processes of traditional media outlets

may help filter out some pieces of misinformation from the social media content (Flanagin & Metzger, 2000; Ahiabenu et al., 2018).

Worryingly, Ahiabenu et al. (2018) found that about 26.9% of newsrooms in Ghana do not have systems in place to filter out misinformation despite their heavy reliance on social media for information curating purposes. Of those who had systems in place to deal with fake news, about 81.7% did not have dedicated staff to deal with fake news. Further, “94.7% of newsrooms in Ghana did not have an annual budget dedicated solely for fake news verification whereas 5.3% of newsrooms who had dedicated budgets for fake news verification had an amount less than GH 30,000 (USD6,700)” (Ahiabenu, et al., 2018, p. 11). The lack of systems in place to check the spread of fake news in both the social media and traditional media space, makes fake news likely to occur in both social media and non-social media space in Ghana.

Beyond the lack of systems of by traditional media outlets to check social media content on Covid-19 before sharing, misinformation from the social media space may infiltrate traditional media because news reporters have been found to have an urge to be the first person/organization to break news, and this consequently undermines the conventional news verification systems (Ahiabenu et al., 2018).

2.6 Social Media Users versus Non-Users

Research has shown that there exist demographic differences between social media users and non-users (Hargittai, 2007; Mellon & Prosser, 2017). First, social media users are more likely to be significantly younger than non-social media users (Ellison et al., 2007; Mellon & Prosser, 2017). According to Mellon and Prosser (2017, p. 3), “85% of people aged between 18 and 30 used Facebook, whereas only a minority (40%) of respondents over 40 did.” Ellison et al. (2007) explained that the relative novelty of platforms like Facebook, partly explains why these platforms are not popular amongst older generations. Thus, the older generation is arguably

used to a life where information is attained from traditional media sources and from persons they know on an interpersonal level. Consequently, misinformation prevalent in the social media space may be more prevalent among younger people than older people.

In terms of education, users of Facebook and Twitter had higher educational attainments than non-users (Mellon & Prosser, 2017). One possible explanation for the difference between social media users and non-users in terms of educational attainment is that people with higher educational attainments find social media platforms more useful. For people with high educational attainments, social media platforms could be useful for staying in touch with one's friends and colleagues, for accessing information on various issues, and for seeking out more educational opportunities.

In terms of behavioural characteristics, Facebook users were found to be more overtly narcissistic, such that they had a greater tendency to disclose personal information to others (Ljepav, Orr, Locke, & Ross, 2013). Understandably, the narcissistic tendencies of social media users is engendered by fact that social media users gain likes and followers when they make posts on social media. In a bid to attract more likes and followers, it can be plausibly argued that social media users will share information about Covid-19 as soon as possible, and may do so without verification.

In terms of social networks, social media users were more likely to have contemporaries who similarly use social media (Ljepav, et al., 2013). A plausible explanation for this is that users of social media platforms meet other users on the same platform and eventually become friends or acquaintances. As found by Mellon and Prosser (2017), younger persons use social media often, and are thus more likely to become friends or acquaintances with one another.

2.7 Theoretical Framework

Two theories guided this study: The theory of self-indication and the theory of social action by Talcott Parsons. The theory of self-indication is a symbolic interactionist theoretical perspective which offers an account of why people act the way they do in various situations. The theory of self-indication helps in explaining why people believe in fake news, why they choose to verify some information yet believe other information without verification, and what informs their subjective conception on how information should be verified.

The second theory used in this study is the theory of social action by Talcott Parsons. Parsons' theory of social action explains the goals people have in society, how people act to achieve an end/goal, and the resources they use to achieve the goal. Primarily, the goal of this study is information verification. Consequently, the theory of social action explains why people may or may not have information verification as a goal, the means they utilize to actualize information verification if they have it as a goal, among others.

2.7.1 Self-Indication; a Symbolic Interactionist Perspective

Herbert Mead's idea of self-indication as a basis for human action and behaviour is important in understanding how people respond to the Covid-19 pandemic and follow health guidelines from recognized health institutions or authorities. Mead's thesis on self-indication is rooted in the basic argument that every human has a self they can make an object of their actions (Mead, 1934). According to Mead (1934, p. xxiv), a man can "look back at himself from (respond to himself from) that perspective, and so become an object to himself." When a person makes the "self" an object of their actions, they treat the self as if it was an 'other', a third party. For example, people can advise themselves, get angry at themselves, rebuff themselves among others, in a similar way they would have done to others (Mead, 1934; Blumer, 1986).

Consequently, Mead argues that people's actions are products of self-indications after taking various things into account. According to Mead,

a human individual can indicate to himself what the other person is going to do, and then to take his attitude on the basis of that indication. He can analyse his act and reconstruct it by means of this process. The sort of intelligence he has is not based on physiological differentiation, nor based upon herd instincts but upon the development through the social process which enables him to carry out his part in the social reaction by indicating to himself the different possible reactions, analysing them, and recombining them.

(Mead, 1934, p. 244)

Blumer (1986) in explaining the ideas of Mead stated that before an individual engages in an action or response in a way, he/she

proceeds by pointing out to himself the divergent things which have to be taken into account in the course of his action. He has to note what he wants to do and how he is to do it; he has to point out to himself the various conditions which may be instrumental to his action and those which may obstruct his action; he has to take account of the demands, the expectations, the prohibitions, and the threats as they may arise in the situation in which he is acting.

(Blumer, 1986, p. 81)

Crucially, people's actions and responses to various things in life are products of their accounts for societal expectations, evaluations of formal rules in support of and against their action, and their assessment of the possible consequences that may arise because of their actions or choice of response (Mead, 1934). According to Blumer (1986), people develop a sense of what is expected of them in a context and eventually acquire common understandings of how to act in various contexts.

Essentially, these understandings of how to act and the types of actions that are considered appropriate can change over time as an actor encounters something new, such as new information, a new context, or a new set of among others. After all, the process of self-indication is such that "the actor notes various things, defines and weighs them, projects out different possibilities of action, selects among them, makes decisions, and revises his plans as he takes account of something new." (Blumer, 1986, p. 96)

Furthermore, Blumer (1986) analysed that Mead's idea of self-indication is different from the idea of attitudes/predispositions. According to Blumer (1986), self-indication is such that it can suppress an individual's attitudes or predispositions in favour of actions that are deemed more appropriate. For example, a person may have a negative attitude towards an outgroup, yet act favourably towards them because it might be realized, post-self-indication, that acting favourably yields some benefits, or that expressions of antagonism results in societal reprisal among others.

When Mead's original ideas on self-indication and Blumer's (1986) subsequent commentary on those ideas are applied to examining people's responses to the Covid-19 pandemic and the concomitant safety protocols, two ideas emerge. First, an individual can act in a medically sanctioned way or adhere to safety protocols despite having ideas that contradict their adherence to those protocols. This is because actions and responses are consequences of actors evaluating societal expectations and the threats they will face if they act contrary to those expectations. Here, the space in which an individual interacts shapes the expectations they think members of their space have of them. Thus, when an individual is in a context where the dominant idea is that people ought to wear their nose masks, wash their hands frequently with soap and water, refrain from public gatherings, and maintain social distancing, expectations are created and an individual then weighs these expectations against any reason or incentive they might have to act contrary to these expectations. As Blumer (1986) notes, "What one's associates are doing becomes the context inside of which one's own developing act has to fit."

The second issue which emerges from the idea of self-indication is that fake news shapes the process of self-indication and the eventual courses of action people deem appropriate. For example, by widely broadcasting fake news pieces on effective treatment methods such as the use of hot water, individuals are convinced that their decision to consume hot water on regularly

is socially sanctioned and appropriate. Similarly, people can choose to violate safety protocols if other people in their social space find the violation tolerable or acceptable.

2.7.2 Talcott Parsons' Theory of Social Action:

In his theory of social action, Parsons sought to explain the behaviour of man as it occurs within a social context (Parsons, 1937). The concept of an act is fundamental to Parson's theory of social action. In characterizing what an act is, Parsons stated that "an 'act' involves logically the following: (1) it implies an agent, an 'actor.' (2) for purposes of definition the act must have an 'end', a future state of affairs toward which the process of action is oriented..." (Parsons, 1937, p. 44). Thus, an agent, usually a human is needed to act for the actualization of various ends.

To achieve ends, Parsons (1937) analysed that there are certain things/factors/resources under the control of the agent, and he referred to these as means. However, there are some other things/factors outside the control of the agent, and Parsons referred to these as conditions (Parsons, 1937). To illustrate his concepts of an act, the constitutive elements of an agent, end, means, and conditions, Parsons (1937) used a scenario involving a student with an immediate end of writing a paper on a subject. According to Parsons (1937) submitting the paper can be recognized as the concrete end. To achieve that end, the student must use various things over which he/she has an appreciable degree of control, such as books, paper, pencil, and typewriter, and these are the means (Parsons, 1937). In addition to the things the student has control over, there are certain things the student cannot control, such as have unlimited number of books. The things the student cannot control are referred to as the conditions (Parsons, 1937).

In addition to ends, means, and conditions, Parsons' (1937) theory of social action contains a normative element (Parsons, 1937; Fox, Lidz, & Bershady, 2005). The normative element involves those "rules of conduct and underlying values that regulate human behaviour" (Fox

et al., 2005, p. 3). According to Fox et al. (2005, p. 4), “Parsons argued that normative elements made it possible for ongoing social relationships to achieve a degree of social order.” Whilst ends and means are essential in social action, Parsons states that norms guide what individuals choose as ends and guides the means individuals choose to attain their chosen ends (Parsons, 1937; Fox, Lidz, & Bershadsky, 2005). This normative element is considered important for the maintenance of social order as individuals for instance are normatively constrained in their choice of ends that may affect societal stability.

Parsons’ theory of social action is useful in understanding the verification practices of social media users and non-users. The theory helps in explaining why some people may choose to verify information and others choose not to verify. Whilst verification of information can be characterised as an end, like other ends, various actors still have the choice to desire that end or worthy of attaining. When people choose to verify information, it simply reflects their choice of information verification as a desirable end. Further, it demonstrates that despite the existence of conditions (constraints), people are willing to pursue an end they consider worthy of pursuit. The pursuit of the end of verification despite inhibitions can also be reflective of the fact that there exist social norms that recognize having verified information as a worthy end worthy of pursuance, or at the very least that no social norm proscribes the pursuance of verification as an end. Further, the theory allows for a thorough investigation of the verification processes undertaken by participants who choose to verify information. The verification processes, in Parsons’ terms, are the means.

On the other hand, when people do not verify information, possible explanations could be that verification is not construed as a necessary or worthy end, or that the conditions (restraints) are such that the means of an individual cannot allow for the actualization of the end of verification. These conditions could include time restraints, resource restraints, and skill restraints among others.



CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter elaborates on the methods and procedures that were used in conducting this study. In this chapter, the research method, sampling techniques and procedure, the sample size, inclusion and exclusion criteria, methods of data collection and methods of data analysis, the research site, and ethical considerations are elaborated.

3.2 Research Design

This study used a qualitative research method. Qualitative research relies on participants to provide detailed/in-depth information about their subjective lived experiences (Jackson, Drummond, & Camara, 2007). Kothari (2004, p. 5) describes qualitative research as involving the “subjective assessment of attitudes, opinions and behaviour”. A qualitative research method is concerned with deepening understanding of a phenomenon, situation, behaviour, and “is not concerned with numerical representativity” (Queirós, Faria, & Almeida, 2017, p. 370). Pathak, Jena, and Kalra (2013, p. 192) similarly explained that the qualitative method is “used to understand people’s beliefs, experiences, attitudes, behaviour, and interactions. It generates non-numerical data”

Owing to the fact that this study seeks to explore people’s subjective assessments and attitudes about Covid-19 and verification of Covid-19 related information, a qualitative research method is the most appropriate research method as it allows for the exploration of such subjective human experiences. Further, this study is not concerned with obtaining numeral data on information verification practices and experiences of fake news, but rather seeks to explore what those practices and experiences entail.

Within the qualitative research method, various distinct approaches exist. These different approaches constitute the different ways qualitative research can be conducted and they include ideas on the methods of data collection, data analysis, and purpose of the research among others (Creswell, 2007). Common qualitative approaches are ethnography, case study, grounded theory, phenomenology, discourse analysis, and narrative research (Creswell, 2007; Starks, 2007). This research used the phenomenological approach. According to Mohajan (2018, p. 8), phenomenology is “an approach to explore people’s everyday life experience. It is used when the study is about the life experiences of a concept or phenomenon experienced by one or more individuals.” Starks (2007) also explained that “through close examination of individual experiences, phenomenological analysts seek to capture the meaning and common features, or essences, of an experience or event.” In phenomenological research, Creswell (2007) explained that the data is gathered from individuals who have experienced a given phenomenon, and then the researcher “develops a composite description of the essence of the experience for all of the individuals.” (Donalek (2004, p. 58) similarly notes that a phenomenological researcher recruits persons who have experienced a given a phenomenon and have the will and capacity to share their experiences.

The choice of the phenomenological approach was borne out of the fact that the approach emphasizes engagement with persons who have experienced a given phenomenon and are willing to describe their experiences. In this study, the phenomenon of interest is fake news and the main aim of the study involves an assessment of participants’ encounters with fake news and their subsequent actions (verification, application of encountered implication to their lives). The phenomenological approach was considered a more appropriate method than methods such as ethnography, and grounded theory. Ethnography relies on participant observation as the primary data collection approach (Creswell, 2007). For instance, the participant observation method of data collection was considered less desirable due to its

potential to skew the information verification procedures of participants (observation from a researcher may influence participant actions). Further, it was believed that people encountered information about Covid-19 whilst engaged in private conversations with others or whilst privately exploring social media, and participant observation would have been inappropriate in those circumstances. Similarly, the grounded theory approach was considered less suitable in this research as the purpose of the study was not the development of a theory on fake news and information verification processes.

3.3 Study Area

This research was conducted in the Greater Accra region of Ghana. Greater Accra is one of regions of Ghana, located at the south-central part of Ghana, and contains the capital city of Accra (GSS, 2013). The Greater Accra region is considered a metropolitan region and “hosts most of the business and industrial establishments in the country, and a range of international organizations.” (GSS, 2013, p. 27). The latest census in Ghana also revealed that the city of Accra has the highest proportion of non-Ghanaians than any other district in Ghana. Further, the Greater Accra region also has an enormous population of mobile phone users, discovered to be 73.5 percent of persons 12 years and older and greater than the national average of 47.7 percent (GSS, 2013). Perhaps owing to the high population of mobile phones users in Greater Accra, it is also the region with the highest proportion of internet users in Ghana (GSS, 2013). The metropolitan status of Greater Accra, its mobile population and internet proliferation, made the region the most suitable region to conduct this research. Firstly, awareness of Covid-19 is particularly high in the Greater Accra region due to the massive media attention the region gets for having the highest number of Covid-19 cases. Latest data from the Ghana Health Service reveals that the region has more than half (as of 23rd July 2021, the region had 55, 580 Covid-19 cases out of 102,103 cases) of Ghana’s reported Covid-19 cases (GHS, 2021). Due to the

massive media attention the region gets, it is very likely that the population of Greater Accra have encountered some Covid-19 related information at some point. Secondly, the high penetration of mobile phones and internet technology in the region makes it suitable for this research as it is very likely that participants, particularly the social media group, have at some point encountered Covid-19 (mis)information online.

No specific area in Greater was chosen for the recruitment of participants and participants were conveniently and purposively sampled throughout Greater Accra. The main reason for recruiting participants this way was to maximize the possibility of attaining a wide range of views on Covid-19 and attitudes towards information verification.

3.4 Sample Size

Being able to check every element of a study population can help guarantee some accuracy as all items in a population are covered (Acharya, Prakash, Saxena, & Nigam, 2013; Kothari, 2004). However, constraints in terms of money, time, and energy, greatly prevent the actualization of this idea. For instance, whilst it would have been ideal to collect data from every Ghanaian concerning the Covid-19 pandemic and their information filtering processes and subsequent actions based on the nature of the information, it is impossible to pursue due to the constraints formerly mentioned. Kothari (2004) further asserts that governments are perhaps the only bodies capable of carrying out such grand operations. Owing to resource constraints, a sample size, a section of the target population, is usually chosen for data collection purposes (Lavrakas, 2008). As this study was concerned with two groups of participants, social media users and non-users, the study used a total sample size of 20 participants and had an equal distribution of participants in each group (10 for social media users and 10 for non-social media users).

According to Marshall (1996) the choice of sample size in qualitative research is fundamentally premised on the question of whether the study's research questions can be answered with the responses from chosen participants. Marshall (1996, p. 523) further explained that "the number of required subjects usually becomes obvious as the study progresses, as new categories, themes or explanations stop emerging from the data (data saturation)." In this study, new themes stopped emerging at the 5th and 7th participants for the non-social media users and social media users' categories respectively. However, eight more interviews (three social media users and five non-social media users) were conducted to confirm that the point of saturation had been reached, bringing the total number of respondents to 20 (10 participants for each category).

3.5 Sampling Techniques and Procedure

A sampling technique involves "a definite plan for obtaining a sample [a section of the population] from a given sample population. It refers to the technique or the procedure the researcher would adopt in selecting items for the sample" (Kothari, 2004, p. 55). This study used the convenience sampling technique and subsequently the purposive sampling technique to select participants. Thus, participants who were available for an interview (convenience sampling) and possessed the characteristics or experiences considered vital in the study (purposive sampling) were enlisted

In convenience sampling, "elements may be selected in the sample simply as they just happen to be situated, spatially or administratively, near to where the researcher is conducting the data collection." (Alkassim & Tran, 2016, p. 2). Convenience sampling was used because it provided an easy access to potential participants.

The purposive sampling technique involves "the deliberate choice of a participant due to the qualities the participant possesses." (Alkassim & Tran, 2016, p. 2). Alkassim and Tran (2016)

further explained that in the purposive sampling technique, the researcher sets out to include individuals who possess a particular knowledge or experience. In this study, it was essential that participants simply possessed knowledge about the existence of a pandemic dubbed Covid-19 or Corona virus. Perhaps due to the ubiquity of Covid-19 information in Greater Accra, all the participants who were willing and available to be interviewed knew about Covid-19. The purposive sampling technique was used because only participants who possess knowledge about the existence of the Covid-19 pandemic or have experienced the pandemic could respond to questions such as views on Covid-19, effective treatment and prevention methods, and the verification of Covid-19 related information.

The researcher purposively sampled conveniently available Ghanaians in Accra to be part of the study. Throughout the Greater Accra the researcher approached persons believed to be Ghana and informed such persons about the research and his desire to enlist them as participants after confirming that such persons are Ghanaians (Using various identity markers such as skin, among others, and asking such persons if they are Ghanaian). Upon confirming a Ghanaian identity and a desire from such persons to be part of the study, the researcher asked various preliminary questions to confirm if the potential participant knew or heard about Covid-19. It was considered essential to confirm such knowledge because a participant oblivious to the existence of Covid-19 may be unable to adequately respond to the research questions. Upon such confirmation, the contact details of persons who had such knowledge and expressed a willingness to be part of the study were taken for further communication on the time and date for an interview.

3.6 Inclusion and Exclusion Criteria

Participants in this study were included or excluded based on their knowledge/awareness of the Covid-19 pandemic. As the study is concerned with evaluating responses and actions of

individuals to macro level directives on Covid-19, individuals who had no knowledge about the pandemic were not considered very useful sources of data. The study had a very rudimentary characterization of knowledge; it required that a participant knows that there is a Covid-19 pandemic and that there are certain recommended actions they are expected to pursue. Participants' knowledge of the pandemic and its attendant regulations were assessed prior to the start of the interviews (during their briefing on the project).

3.7 Data Collection Instruments

According to Mwandoba (2005, p. 138), "the data required to study experience require that they are derived from an intensive exploration with a participant." In qualitative studies, interviews with participants is the most widely used technique of data collection (Mwandoba, 2005) due to its capacity to produce in-depth data about the experiences of participants. Mwandoba (2005, p. 142) notes that "the purpose of the interview is to gain a full and detailed account from an informant of the experience under study".

In this study, interviews were used as the primary means of data collection. Semi-structured interviews were used for data collection. Semi-structured interviews "consist of several key questions that help to define the areas to be explored, but also allows the interviewer or interviewee to diverge in order to pursue an idea or response in more detail." (Gill, Stewart, Treasure, & Chadwick, 2008, p. 291). Prior to the study, several questions were developed to help streamline participants' responses in line with the objectives of this study. When participants' responses contained ambiguity or required further elaboration, further questions were asked for the purposes of clarity.

3.8 Data Collection Procedures

At the start of the data collection phase of this study which began in June 2021, most of the in-depth interviews were conducted via a phone call. The initial use of the mobile phone as a

medium of conducting the in-depth interviews was largely influenced by the restrictions on social gatherings and the movement of persons. In the later part of the data collection phase when restrictions on movement eased, face to face in-depth interviews was conducted with participants.

Before the actual interviews, and to schedule an interview, the researcher made phone calls through the mobile numbers provided by participants during the sampling stage. When a suitable date and time was selected for an interview, the researcher contacted the participant again on the scheduled date and time for the interviews.

At the start of each interview, a participant is thoroughly briefed about the purpose of the research, their consent was sought for their responses to be tape recorded, and they were informed that their data would be protected and kept confidential. The assurance of confidentiality and the protection of participants' data was considered essential in getting participants to share reliable and valid information. It was envisioned that participants' fears that data would be shared with law enforcement agencies could prevent them from divulging accurate information about their information verification practices, adherence to safety protocols, and responses to the Covid-19 pandemic. The assurance of confidentiality seemed to ease participants' fears.

Participants were then asked about various demographic details such as their name, educational attainment, and whether they use social media. Whilst some participants answered all the questions in the demographic data section, some participants expressed discomfort about revealing information about their age and education attainments. For participants who answered all demography related questions and for those who expressed discomfort about answering, the researcher moved on with the interview primarily because their social media usage status was the most essential demographic characteristic. Participants were then asked

various questions about their knowledge on Covid-19, sources of information on the Covid-19 pandemic/virus, how they verify their information sources, the impacts of social relations on their evaluations on the veracity of Covid-19 information among others. Often, a response by a participant to a query demanded further interrogation and the researcher thus asked follow up questions on the responses of participants.

The interviews were primarily conducted in English. However, participants at some point during the interview process spoke Twi (a local Ghanaian language) and/or pidgin. Based on the educational attainment of participants, questions in the interview guide were sometimes asked in Twi or pidgin to aid participant understanding. These non-English languages were later transcribed and translated into English for coding and analysis.

3.9 Data Analysis

Analysis of qualitative primary data, generated using interviews and other collective data collection techniques, involves “conceptually interpreting the data set as a whole, using specific analytic strategies to transform the raw data into a new and coherent depiction of the thing being studied” (Thorne, 2000, p. 68). To analyse the transcribed data, the thematic network analytical tools were employed. According to Attride-Stirling (2001, p. 387), “thematic networks is simply a way of organizing a thematic analysis of qualitative data. Thematic analyses seek to unearth the themes salient in a text at different levels, and thematic networks aim to facilitate the structuring and depiction of these themes.”

The process of conducting a thematic network analysis involves the extraction of lower-order premises (known as basic themes) from transcribed data, grouping similar lower-order premises or basic themes to form more abstract principles known as organizing themes, and these organizing themes are then grouped together to “present an argument, or a position or an assertion about a given issue or reality” (Attride-Stirling, 2001, p. 389).

According to Attride- Stirling (2001), the first step in the analytical process of thematic network analysis involves coding the material using a coding frame. In this study, the interview guide served as the coding frame and transcript data was coded using this frame. In line with the interview guide, several tables were created in Microsoft Word to handle participants' responses to various questions and the responses of participants on each interview question were extracted and placed into their corresponding tables. For instance, responses of all participants on information verification process were extracted and placed into a table containing only responses on information verification.

The second step in the analytical process of thematic network analysis involves the generation of themes (Attride-Stirling, 2001). In each responses-table, the responses of participants were organized into various columns which served as themes. For instance, responses from participants which claimed that they verified information using internet searches were grouped under one/the same column in the information verification responses table. Column headings were dynamically developed when the responses from participants did not fit existing columns.

The next step in the thematic network analytical process involves constructing the networks (Attride-Stirling, 2001). This step essentially involves grouping similar themes to form organizing themes and the organizing themes are summarized to form a global theme(s). In this study, four organizing themes emerged from the data (these themes were very similar to the specific objectives of this study due to the nature of the interview questions). The themes were: Information verification practices amongst social media users; information verification practices amongst non-social media users; knowledge, beliefs, and information about Covid-19; and adherence to Covid-19 safety protocols. A combination of these organizing themes gave rise to the global theme: Covid-19 and fake news in Ghana.

Each theme in the network was then explored and described in detail using texts extracted from the transcripts. In discussing each theme, responses that best captured the general idea being communicated by the respondents were quoted verbatim and explanations were provided in instances where more clarity was needed. Attride-Stirling (2001) suggests that once the themes in the network are explored, the main themes and the patterns characterizing them should be summarized. In this study, the findings in each organizing theme were summarized and appropriately titled and the basic themes were organized under appropriate organizing themes. The last step in the analytical process of thematic analysis is the interpretation of patterns (Attride-Stirling, 2001). In chapter five of this study, data in each theme and the patterns in the data were discussed using relevant literature and theoretical frameworks.

Data for this study was progressively coded as they were gathered and transcribed. After each interview, the interview audio was transcribed and responses were coded (sorted into response tables). The analysis of the coded data began at the end of all twenty interviews.

3.10 Ethical Considerations

According to Orb, Eisenhauer, and Wynaden (2000, p. 3), “ethics pertains to doing good and avoiding harm. Harm can be prevented or reduced through the application of appropriate ethical principles. In this study, various mechanisms were taken to ensure the protection of participants and their data. First, the researcher ensured that the questions contained in the interview guide were safe for participants and had no ethical violations. The safety of the study and its conformity with ethical standards for research was confirmed through the attainment of ethical clearance from the Ethics Committee for Humanities at the University of Ghana. An ethics clearance number of ECH 097/20—21 was obtained from the ethics committee for this study. See appendix C for the Ethical Clearance.

Prior to the interviews, participants were assured that their data and identity would be highly protected. They were also informed that should any part of the study make them feel uncomfortable, they could ask that the part be skipped or that they could withdraw from the study without any fear of reprisal.

As a way of protecting the data obtained by participants during the interviews, the audio recordings were personally transcribed by the researcher and stored in a secured/password-protected storage device. In addition, the actual names of the participants were replaced with pseudonyms as a way of protecting their identity. Protection of identity was considered necessary as some participants clearly stated their violations of governmental safety protocols based on their subjective beliefs concerning the virus (its existence, effective treatment, and prevention methods among other).

3.11 Limitations of the Study

This study had two limitations. The first limitation was that some potential participants, perhaps with more extreme and contentious views on Covid-19, refused to participate in the study because of a fear that the researcher was a government agent seeking to find persons who violate government safety protocols or knew about the “government’s plan”. In total four Ghanaians objected to being part of the study because of this fear. Although the researcher tried to convince these potential participants otherwise, such efforts proved futile. Despite this limitation, however, the participants who participated in this study provided enough data on nature of misinformation during Covid-19 and on verification practices.

The second limitation in this study was that some participants may falsely claim that they verify information. From the perspective of social action theory (Parsons, 1937), this may be the case if participants realise that verifying information in the context of Covid-19 is a normative and imperative and others (including the researcher) expect them to pursue. Consequently, a participant who does not verify information may still falsely claim that they do to avoid costs such as chastisement among others.

The theory of self-indication theory (Mead, 1934; Blumer, 1986) also offers a similar explanation. According to Mead (1934, p. xxiv), “a human individual can indicate to himself what the other person is going to do, and then to take his attitude on the basis of that indication” Thus, a possibility exists for a participant to indicate to himself or herself that the researcher would expect him or her to verify information, and claim to verify information even if that he or she does not.



CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1 Introduction

This chapter presents the findings from data generated from a sample of Ghanaian social media users and non-social media users that were interviewed in Accra, Ghana. The data was collected through in-depth interviews with participants over the telephone and in person. Generally, participants were asked about the various views they held about Covid-19; whether they verified those views prior to holding them as accurate; and how they proceeded with verifying information if they decided to verify. It is essential to note that the responses of participants presented in this chapter are mostly in tone and language of the participant, and minor edits were sometimes done to improve readability whilst maintaining the substance of the response.

This chapter is divided into three main sections: the demographic characteristics of participants section, the social media users and Covid-19 section, and the non-social media users' section. In the social media users and the non-social media users section, users were asked about their views and knowledge about Covid-19 in terms of causes and effective prevention and treatment methods. These questions were asked to discover what participants believed, whether accurate or inaccurate, before proceeding to explore how or whether they verified those pieces of information. Participants in each section were also asked about their sources of information as far as Covid-19 was concerned. These sources of information invariably influenced verification practices as some sources were considered more credible than others. Finally, participants in each section were asked about their verification practices. Participants under this subsection answered questions on when they choose to verify, how they proceeded with verification, and the impacts of verification on their belief or otherwise of the information they chose to verify.

4.2 Socio-Demographic Characteristics of Participants

Participants were most young people with an average age of 32.15. The youngest participant was twenty-three years old whilst the oldest participant was fifty-seven years old. In total, nine of the participants were female whilst 11 were male. Amongst the participants who used social media, there were four female participants and six male participants. Amongst the participants who did not use social media, there were five male participants and five female participants.

In terms of education status, participants were asked about their highest educational attainment.

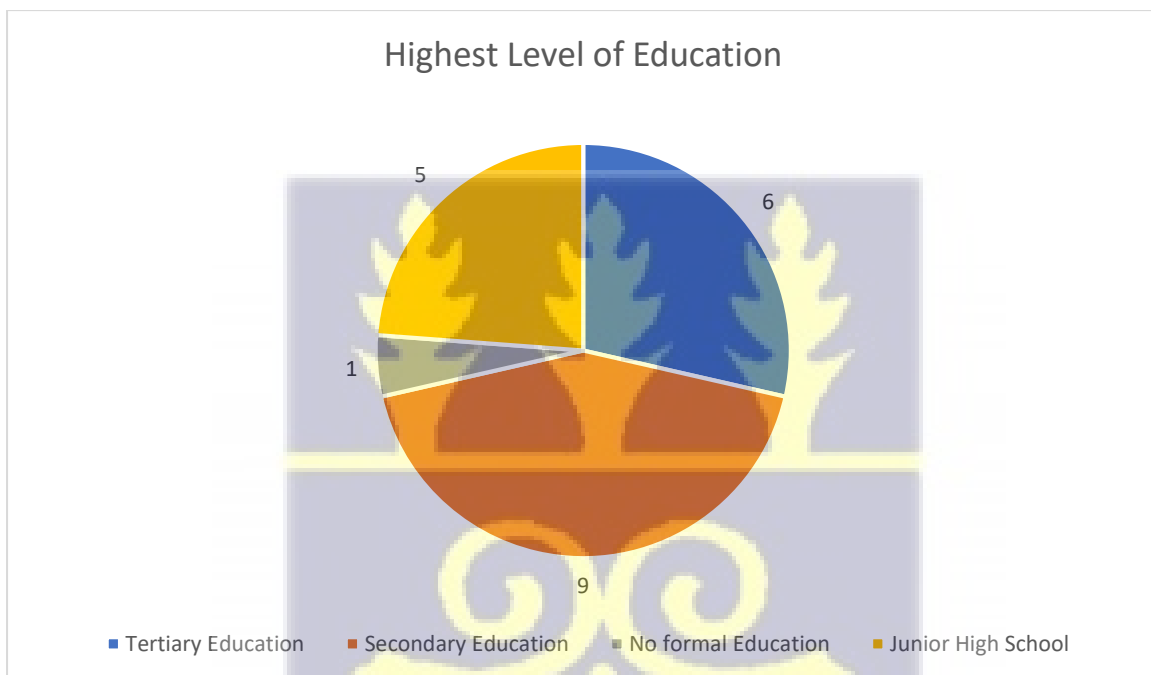


Figure 1: Highest Level of Education

Most participants had a secondary education as their highest level of education. Especially for participants who did not use social media, a secondary education was the most common highest level of education. In addition, a Junior High School education was the second most common highest level of education for participants who did not use social media. All the participants who mentioned tertiary education as their highest level of education were social media users.

Participants were asked about their highest level of education to explore if their educational background shaped the views they may accept as accurate, their evaluation of the veracity of

information, and how they verified information. The findings in this study, however, showed that irrespective of a person's level of education. In terms of information verification, a person's level of education did not play any major role as participants merely used resources within their control to pursue the goal of information verification. However, it can be contended that the ability to utilize certain resources to verify information is contingent on one's knowledge to use those resources, and such knowledge is linked to one's level of education.

4.3 Social Media Users and Covid-19:

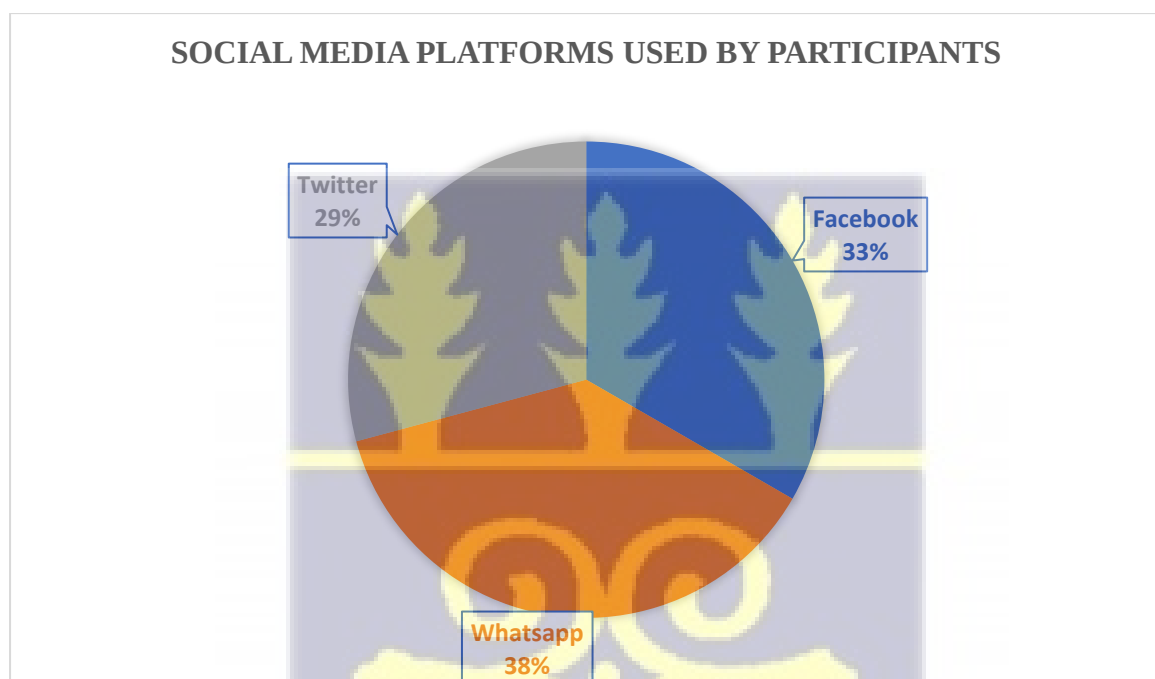


Figure 2: Social media platforms used by participants

Social media users are participants who regularly accessed at least one social media platform during the outbreak of Covid-19 and the period leading up to the interview. Most of the participants used several social media platforms and the common ones were WhatsApp (nine out of ten participants), Facebook (eight out of ten users), and Twitter (seven out of ten users). Most of the participants (seven out of ten users) reported that they used social media daily. The

other three participants merely reported a frequent use but claimed their usage of social media was not daily.

Social media participants in this study were asked their sources of Covid-19 information and their perceptions of the credibility of those sources. Sources of Covid-19 news for social media users included social media platforms, traditional media, and news obtained from other non-social media internet sources.

All social media users admitted to having read some news about Covid-19 from social media. For these social media users, posts by friends on social media platforms, sponsored posts, and posts by news agencies were their source of information as far as the social media space is concerned as below,

sometimes you are scrolling on social media or even watching a video and then you will see some of these things. Like ads. Sometimes too your friends will link you. The time it came first you will see it like all the time. As for now it has even reduced.

(Phillipa, 23, Tertiary Educated)

oh, the news almost anyone is sharing some. Sometimes my friends will post and tag me. Sometimes too you see news from CNN and things. So yeah

(Prince, 25, Tertiary Educated)

As social media users are still active members in non-social media spaces, social media users, like non-social media users, also obtained information from friends in non-social media contexts, traditional media, and even the internet particularly google and the websites of various news sources. When asked about sources of information for Covid-19 news, participants said:

on Facebook, on opera mini and opera news.

(Yaw, 23, Junior High School Educated)

television, news, like radios and I think Facebook.

(Kojo, 27, Senior High School Educated)

okay I mostly erm... I read it online myself or I listen to the news and other NCCE education.

(Vincent, 28, Tertiary Educated)

Thus, unlike non-social media users, social media users in addition to using social media platforms and the internet to access Covid-19 related information, also used the various platforms used by non-social media users to access information about Covid-19.

Social media participants were asked about the credibility of social media as a news source and the credibility of non-social media news sources. Whilst some participants believed that social media contains accurate information, others believed that the social media space contains a mixture of true and false information. Most social media users expressed that they generally trust social media as a platform as far as Covid-19 related information is concerned. For some participants, social media posts are usually consequences of research carried out by the parties posting:

I don't quickly say it's false or something. But depending on where the news is coming from, especially when its coming from let's say social media and and erh these bloggers...kind of erh let's say they are not lying. They are not liars they always look for what is happening in the world...

(Emmanuel, 28, Senior High School Educated)

as for that one I don't know whether is wrong or right but I see it on social media so I believe.

(Kojo, 27, Senior High School Educated)

The thinking that posts on social media, especially by bloggers, are manifestations of objective research and that those making the posts are well researched affected the need to verify.

Despite the general belief that information from social media about Covid-19 is usually true, three participants also highlighted that social media can contain misinformation:

some are true some are not.

(Yaw, 23, Junior High School Educated)

if it [the news on the social media platform] is coming from a credible source I always try to scrutinize the information I am reading where the whole thing is coming from, if is not coming from a source I know I really doubt it. Until I realize it is a verified source I don't believe it.

(Vincent, 28, Tertiary Educated)

Participants in this section were also asked about their perception of the credibility of non-social media news sources. For traditional media sources, a total of eight social media participants believed that information about Covid-19 on those platforms are more credible.

Okay I think you see those news agencies, radio agencies, they do valid research before bringing out information...so, I trust that source of information very well.

(Phillipa, 23, Tertiary Educated)

okay. My perception is erm I can't say or I don't believe that they would just come out or they will just stand up one day to come and just tell us that Covid is real to put fear or panic in ... erm thus the citizens of Ghana. If the thing is not real, they wouldn't have come out to say such a thing. So, I think it is real.

(Veronica, 26, Tertiary Educated)

However, two Participants asserted that like social media news sources, traditional media sources may equally contain misinformation. When asked about their perceptions of the credibility of traditional media platforms, participants responded:

I think some [disseminated information by traditional media platforms] is being [deliberately and falsely] created. They lie. For people to... I would say it's a showbiz [deliberately created for entertainment purposes].

(Yaw, 23, Junior High School Educated)

last time the president appeared on the television to speak about corona virus, but I haven't seen anyone with that sickness before [has not seen anyone who has contracted Covid-19], so I don't believe it.

(Kojo, 27, Senior High School Educated)

In addition to traditional media sources and social media sources, social media users sometimes obtained information from family and friends and they were asked about their perception of

the credibility of information obtained from family and friends. Seven participants believed that news from family and friends are usually credible:

well it's true. But ... I think it's ... although it's informed... it will be an informed opinion, I still trust it because they also listen to news, they read newspapers and they listen to radio stations. So, they always get information from those sources and they pass it on to me as well.

(Phillipa, 23, Tertiary Educated)

One participant asserted that their belief in family and friends is not generic, but contingent on the person (family or friend) giving the information:

It depends on the person who is giving me the information. Let's say if I know the background of the person, how intellectual the person is, or how the person can also scrutinize information, imagine my lecturer giving me an information, it's easy for me to accept it. Or imagine somebody from the health background giving me information concerning Covid, it's easy for me to accept it than me in car and the mate is giving me an information. I will scrutinize the information.

(Vincent, 28, Tertiary Education)

Two participants, however, believed that others may mislead family and friends, particularly through their use of social media.

As for our mothers they will share everything with you [laughs]. They don't even check they will just forward once they see that they should share [giggles]. Sometimes I just read and I ignore or tell her not to believe everything because people just sit and lie and send around.

(Stephen, 35, Tertiary Educated)

The participant's response intimated that older people are more susceptible to misinformation than younger people.

4.3.1 Views of Social Media Users on Covid-19

In line with the first sub-objective of this study, which is to explore the views social media participants held about Covid-19, participants were asked about their knowledge concerning the cause of the Covid-19 pandemic, its origin, effective treatment methods, effective prevention methods, and any other knowledge about the virus.

Participants generally expressed what they believed to be the cause of the virus with some level of scepticism. This scepticism was borne out of the plethora of varying public opinion about the cause of the virus. As evidence of the scepticism, some participants usually mentioned more than one possible cause of the virus whilst others stated that they were unsure about the cause of the virus particularly given the plethora of distinct claims about its cause. Common beliefs about the cause of the virus were that it was an active human creation, a natural phenomenon, others simply did not know the cause of the virus or uncertain about the cause. On the virus being caused by humans, three out of the ten social media users claimed that the virus was manufactured in the laboratory either for geopolitical reasons or for the reduction of the global population. These participants displayed a strong tendency for conspiracy theorization and a “us versus them” mentality. According to a participant as stated below,

the origin is from China. The origin. Where it is from... it's from... they say it's from it's from China. Yeah and they are Chinese scientist that created them.

(Emmanuel, 28, Senior High School Educated)

Participants who held this view with some conviction also believed that they had performed due diligence in obtaining the information. One participant for instance stated that his search for the true cause of the virus led him to discover that the widely held believe that the virus was caused by bats is a lie and that it was rather a creation of Whites. He stated:

I found out that it's this people this white people who... they always create virus themselves then [laughs] they will come and sell it to us.

(Yaw, 23, Junior High School Educated).

For Yaw, Covid-19 is merely the recent manifestation of the laboratory manufacture of viruses, and other diseases like Human Immunodeficiency Virus (HIV). When asked to justify his claim that Covid-19 was a human creation, the participant advanced that,

they [the White race] have been doing it since since. Since... like let me mention something like... the HIV, the ...I don't know they are a whole of it [several virus have been created by the White race].

(Yaw, 23, Junior High School Educated).

Whilst Yaw for instance had some conviction in the veracity of his knowledge that Covid-19 is a human creation, another research participant, Kojo, who although expressed the same view as Yaw, did so with some level of scepticism. According to the participant,

people say China people caused it but, in this world, anything can happen so I don't know. They say some China people they go chop snakes and those frogs, some people say they create their own virus and things. But I don't believe that.

(Kojo, 27, Senior High School Educated)

In addition, two out of ten social media users believed the virus was simply a natural phenomenon. What was common in their statements on the cause of the virus was that they similarly encountered information characterizing the cause of the virus as man-made. Their subsequent belief in the virus being natural therefore included an active attempt to refute what they believed to be the popular opinion on the cause of the virus. One participant said:

I I think erm it was brought about like... the way it was brought about it's a virus. When virus gets into your body, that's how erm I think it was brought about. It was virus that causes such pandemic. But my perception is not about erm human erm I mean being at the lab preparing something to I mean harm us or Mmm. That's not my perception about it.

(Veronica, 26, Tertiary Educated).

The remaining five of the ten social media users whilst aware of the plethora of views on the cause, simply stated that they do not know what caused the disease. Knowledge in this instance was about being certain about the cause of the virus. Two participants, in responding to a question on knowledge about Covid-19, asserted:

okay the cause, hmm. There are so many misconceptions about it so some will say it's from China, some will even say it is from ducks erh herh those kinds of animals. So, I really don't know but I believe it's real. Whilst people are dying out of it, it's real.

(Modesta, 24, Senior High School Educated)

we should ask the government. They should tell us the cause and the cure. Yes. Whether it was being created or manufactured, they should just tell us the truth.

(Stephen, 35, Tertiary Educated)

The uncertainty on the cause of Covid-19 was mainly stemming from the numerous and often contradictory information participants encountered on the cause of Covid-19.

Beyond being asked about the cause of Covid-19, social media participants were asked about what they knew regarding effective ways of preventing and treating the virus. All the social media participants mentioned more than one way they believed to be effective in preventing or treating the virus. Effective prevention and treatment methods included the adhering to WHO-approved safety protocols such as the washing of hands and maintaining social distancing and using various local and usually unproven prevention and treatment protocols such as drinking salt water.

All the social media participants in this study believed in the effectiveness of some WHO-recommended prevention methods. Participants believed that observing social distancing protocols, wearing of nose masks, sanitizing, getting vaccinated, and washing hands regularly with soap under running water can help prevent one from contracting the virus. For instance, a participant, Veronica, spoke about several World Health Organization recommended prevention methods as follows.

effective treatment mechanism. Okay. erm the only effective mechanism is you to be vaccinated against the Covid-19, that's all. Though it it will never cure it, but at least at least it will boost your immune system. Boost your immune system. That is ... boost your immune system... when you wear your mask, when you are going out, or let's just say when you come... you come back from thus wherever that you went, get to wash your hands. Erm soap and running water. And also, you sanitize your doors, any metal thing that is touchable, you sanitize those kinds of stuff. Ah huh. And when you are

also going out, you have to wear your nose mask. And also, being in the house, you have to eat more fruits. More fruits. Take in much water.

(Veronica, 26, Tertiary Educated)

Whilst some expressed optimism that the vaccines would be effective in preventing one from contracting the virus, others expressed some scepticism regarding the effectiveness of the vaccine as indicated below:

because I feel we are living with the hope of like this thing would ... we would get to a point where it is no more. But it's going to be like the case of aids and malaria and things. We are doing so many researches but still they are there. Malaria is still there. Always we take these vaccinations for polio and things, it's still there. There are certain things you just have to be cautious and live the safety rules. That's what I know that people don't know. That we can't cure the virus irrespective of the vaccines we are taking, we can't cure the virus.

(Vincent, 28, Tertiary Educated)

In addition to WHO-recommended prevention and treatment methods, a total of six out of the ten social media users believed in some form of local remedy for preventing one from contracting the virus or treating an infected person. Generally, participants who believed in the effectiveness of local remedies in treating or preventing the virus mentioned two classes of local remedies. The first class of local remedies was the sun or some other heat source. Participants with this view believed the virus cannot thrive in the presence of heat; and the sun was believed to be playing a significant role in keeping the number of infections relatively low in Ghana/Africa and in protecting individuals from contracting the virus. Two participants claimed:

Erm the information I had is about the surge, it is killing a lot of people in the Europe and erm but I learnt in Africa here because of the sun, it is not really affecting us.

(Emmanuel, 28, Senior High School Educated)

Take in much water. Also, the water I heard from news that in the morning you can even heat water thus warm water, not all that hot, warm, and you will be taking it. That is it.

(Veronica, 26, Tertiary Educated)

A participant who similarly said “they say corona virus only comes in cold, and because we are in Ghana and Ghana is hot, it can’t come” (Rita, 32, Senior High School) was asked why Covid-19 is still in Ghana despite the obvious daily heat in Ghana and she responded “it’s for the big men now. Because they use A.C [air condition]” (Rita, 32, Senior High School).

The second class of local remedies were herbs or various local foods. Participants believed that some types of herbs have healing properties or can protect one from contracting the virus. These herbs included neem tree, pawpaw leaves, mango leaves. Neem tree was mentioned by almost all the participants (six out of ten participants) who mentioned that local remedies as being effective in preventing and treating the virus. Participants narrated the prevention properties of various leaves as follows:

As for me what I heard about the curing function of the neem tree, lemon, and the rest. If you boil it morning afternoon evening, it will prevent it.

(Rita, 32, Senior High School Educated).

So, what me I do most is to boost my immune system with maybe herbs especially ginger, garlic, and neem tree, like anything that boosts my immune system.

(Vincent, 28, Tertiary Educated)

Whilst most participants stated that these herbs and leaves are effective for treatment and prevention, one participant narrated how local remedies can be used to prevent and treat the Covid-19 as follows:

erh inhalation of erm this erh ginger. They say you boil ginger... it’s the same thing. They inhale it... the the neem tree you boil it as it is... the vapour is coming up you inhale it your nostril through to your oesophagus yeah...so that it will kill the virus... it will burn them down so that you will not die quick.

(Emmanuel, 28, Senior High School Educated)

Thus, in addition to the view that local remedies are effective against Covid-19, there are views on how those local remedies should be utilized to utilize the desired end of protecting one's sense from contracting Covid-19.

4.3.2 Verification of Views and Knowledge about Covid-19:

Participants were further asked how they verified those pieces of information before internalizing them and (usually) believing them as accurate. Participants were asked what their initial action was after receiving information about Covid-19, when they verified the received information, how they went about verification if they decided to do so, and what were the usual consequences or outcome of the verification.

The initial action taken by most participants (six out of ten participants) as they received Covid-19 information was to share the information to members of their social network. There was a general perception that sharing information to their friends and family was an essential way of ensuring that they were protected against the virus. According to the participants, they used the sharing feature on most social media platforms to share information they received about Covid-19. Participants were asked what they did as they received information about Covid-19, and they responded as follows:

oh okay. let me say erm receiving it I most... mostly I receive it on WhatsApp. Ah huh. You will see erm messages circulating day in and day out, so me too at times I spread it. Most at times. At times too I even use it as my WhatsApp status and stuff. Sharing amongst friends. Telling them that Covid is real.

(Veronica, 26, Tertiary Educated)

oh, I don't ignore them. I also tell people, I do wear my nose mask as well, and I tell people especially those I am close to. I spread it to them so we all protect ourselves and live long.

(Emmanuel, 28, Senior High School Educated)

Two other participants, whilst stating that they shared the information, mentioned that sharing occurred post-verification of the information or after ensuring that the source of the information was at least credible. One of the participants stated:

okay when I receive the information I... as I told you earlier, once I see it's from an authentic source and it's good, I share amongst friends so that they can also help share so that people everywhere would get so that we would not be we would all behave. That's what I do. I share information only when I... after proving. If I don't prove and I'm not okay with it, I will never share.

(Vincent, 28, Tertiary Educated)

Two participants claimed they tried out the directives contained in the received information. Received information sometimes instructed that people took some set of actions to protect themselves from contracting the virus or even to protect themselves from any harm associated with the virus. A participant, when asked what happened once he received information about Covid-19 instructing him to take a set of actions, stated "oh we will do it. Everybody don't want to die. So if you hear such thing you have to try it." (Kojo, 27, Senior High School Educated).

Notwithstanding the fact that most participants were most likely to share Covid-19 information with others as their initial action upon receipt of the information, participants verified information when they felt the source was not credible or when they simply sought to discover more information. On assessing the credibility of a news source, the relationship participants had with the news source was essential. When information came from family and friends, it was more likely to be trusted than when the information came from distant sources. Participants were asked how their relationship with a news source affected their drive to verify, and the following were some responses:

okay that one too I would say because they want the best out of me, I would also say that the news is also like true.

(Emmanuel, 28, Senior High School Educated)

For family and friends yeah yeah. You know that's what I said earlier. It depends on the person who is giving me the information. Let's say if I know the background of the person, how intellectual the person is, or how the person can also scrutinize information, imagine my lecturer giving me an information, it's easy for me to accept it. Or imagine somebody from the health background giving me information concerning Covid-19, it's easy for me to accept it than me in car and the mate is giving me an information. I will scrutinize the information.

(Vincent, 28, Tertiary Educated)

Sometimes, the trust associated with family and friends is also associated to some corporate news sources. A participant for instance said

yes, you are likely not to find out if it's true or false because of the trust you have for that particular TV station.

(Phillipa, 23, Tertiary Educated)

A sense of trust stemmed from one's previous engagements with a news medium, and a subjective decision that those previous engagements resulted in the exchange of accurate information from the news source to the person.

The four participants who stated that they verified information were asked how they verified information they received either from social media platforms or other news sources. Whilst six social media participants did not verify information, four verified. For those four, verification was done by checking the internet, assessing the source of the news, and checking from certified health organizations. Most social media participants who spoke about verification mentioned the internet as the main source of verification. Two of the four participants stated:

I cross check, I don't want to tell anything about it... and I will verify it. From Instagram, erh google, Gmail.

(Yaw, 23, Junior High School Educated)

oh okay, at the local level I mostly check the ministry of information website or ministry of health and sometimes W.H.O. to confirm but when it is an international case that is where ahhh I check it from.

(Vincent, 28, Tertiary Educated)

Checking the source of the news was also considered a means of verification. One participant, when asked how he verified information, asserted “if you know where they captured the information, you go and cross check it.” (Yaw, 23, Junior High School). When asked whether he had ever verified information by checking the source, he responded “yeah Apam. So I called and they said... there was a story about 2 kids who got missing so I called and verified it.” (Yaw, 23, Junior High School Educated).

When social media participants verified information, they usually ended up in one of three states. The first state is a state of scepticism in the existence of the virus, the second state is total denial about the existence of the virus, and the final state is a state of firm belief in the virus, acceptance of recommended safety protocols which is usually coupled with disregard for non-approved safety protocols.

From the data collected, two participants expressed scepticism about the existence of the virus after further research. It was clear that even during verification, the two participants still encountered some misinformation. Thus, verification did not always result in the participant eventually obtaining the right information about Covid-19, rather, some participants ended up being further misled. For instance, one participant who initially believed that Covid-19 was from bats, reflecting the current scholarly acceptance of its zoonotic origin (Ahmad, et al., 2020, Kumar, et al., 2020), claimed that after his attempt to verify the information on the zoonotic origins of the virus, he found out it was false information and that the virus was actually created by the Chinese in a laboratory. When asked whether he verified his information on the virus being from bats, he responded:

yeah I did but I found out that it's these people, these white people who... they always create virus themselves then [laughs] they will come and sell it to us.

(Yaw, 23, Junior High School Educated)

Yaw further claimed that after he did Covid test, he found out the test was not a proper or accurate test.

I did the Covid-19 test and later I went to cross check whether what I did was true or fake. So later I cross check and I did research on all the platform and I found out that it was a lie... yeah, they told me I didn't have anything. I went through I found out that this man there is one country in Africa there is a lady president in that country so I found out that the test is fake. So I always cross check from other countries.

(Yaw, 23, Junior High School Educated)

Thus, the participants claim that he always conducted research on various Covid-19 related information is either not true, or if true, he is still susceptible to misinformation during the course of verification.

Sometimes, a participant's research on Covid-19 could lead to the discovery of conflicting information such that they are unsure what to believe.

I don't actually think they are false; I just don't know. At least I should believe something that I know.... it's something I've been hearing. I've not witnessed anyone who has contracted the disease. I don't even know if it really exists due to the ongoing how do you call it the rules and the stuff that they brought in for Covid-19 I see it's not really going on like first. Like wearing of face masks has reduced. It hasn't changed much from the gov't so it really scares me whether this is really true or not.

(Stephen, 35, Tertiary Educated)

The participant communicates that he has encountered some information about Covid-19, but does not know whether the encountered information is true or false due to his empirical observation of the liberalization in the enforcement of safety protocols. This has led him to question information on the existence of the virus.

4.4 Non-Social Media Users and Covid-19:

In this study, a total of ten (10) non-social media users were asked about their views on Covid-19 and how they verified those views. Non-social media users are those participants who did not personally visit or use any social media platform from the start of the Covid-19 pandemic to the time of the interview. For this group of participants, interviews were sometimes

conducted in a local language as some non-social media users disclosed that they are more likely to understand the interview questions and respond accordingly if the interview was conducted in Twi (a local Ghanaian language).

Non-social media users obtained their information on Covid-19 from two main sources. The first source of information was the traditional media. Participants stated that they receive information about Covid-19 from various radio and television platforms. The radio platforms included Peace FM, Adom Fm, Citi FM, Asempa FM and Joy FM. The television platforms included TV3 and TV Africa. It was observed that participants had a greater preference for radio and television platforms where Twi or any other local dialect was the main medium of communication. When asked about sources of information for Covid-19, participants stated:

Sometimes when I am working, I can open the radio just to listen and the way the sickness has come you will hear them talk about it. The times the president also come on TV to talk about the disease too I listen. So, the disease deir I now believe it is there. It is there.

(Serwaa, 37, Senior High School Educated)

Me deir all the Peace FM is my station. All the time I'm there so anything about corona I hear from there. Yeah.

(Abena, 28, Junior High School Educated)

On the credibility of radio and television channels as far as Covid-19 related information is concerned, all ten participants generally thought of them as credible. Amongst the non-social media participants, it was observed that the phenomenon of fake news is relatively novel and any notion of misinformation was usually linked to political rhetoric and discourse. Non-social media participants had these to say about the credibility of traditional media platforms:

Whatever is going on in the world in Ghana we will know because of the radio and TV stations. They too they want us to follow them so they will bring us the truth always.

(Charles, 31, Senior High School Educated)

Oh, as for the media platforms they usually report things they find. But sometimes too [giggles] this party people will come and be lying to us and we will vote them now see things hmm.

(Osei, 42, Junior High School Educated)

For one participant, the imposition of lockdown across the country sometime in March further gave credence to the information received on Covid-19 from the radio and television sources.

I didn't believe till they said we should go into lockdown... when they said we should go into lockdown, it showed the seriousness of the disease and that it was strange. And trucks burying people who had died.

(Serwaa, 37, Senior High School Educated)

However, four participants were beginning to doubt the credibility of traditional media platforms simply because they do not personally know of anyone who has contracted Covid-

19. According to the two of those four participants,

All the time we hear on radio and tv that some sickness has come, but till now me I have not seen anyone who has the sickness. The time polio come, you can see it. But this one all the time they talk about it and force us to wear nose mask but still me I have not seen anyone with it. So I don't know whether what the radio is saying is even true again because till now I have not seen anything.

(Ibrahim, 57, No Formal Educated)

Brother, do you know anyone who has gotten the disease? Erh? Oh if you know tell me [giggles] cos as for me dier I don't know someone like that. For like 2 years now the radio have been saying that some sickness have come but still I don't know anyone with it. Maybe they are just lying to us. This people can lie sometimes.

(Afia, 45, Junior High School Educated)

Beyond the traditional media platforms, all non-social media users intimated that they obtained information on Covid-19 from other people. These people could be members of their social network or even random societal members they encounter on a day-to-day basis. Statements like "they say..." usually preceded information obtained from non-media sources. A participant who claimed that the virus had its origin from China was asked her source of information, and she responded "that one is just hear say hear say. Everyone is saying" (Serwaa,

37, Senior High School). Friends and family in particular were the most common source of non-media Covid-19 information.

Sometimes my friends when they hear something and they know that it will benefit me then they will come and tell me too. The virus die we have to be our brother's keeper. When you hear something that will benefit someone, you tell them. When they hear too, they tell you.

(Charles, 31, Senior High School Educated)

The non-media source of information, whilst common, was not associated with the same level of credibility as the traditional media sources. In the words of one participant, these non-media sources constituted “akika kika” translated “just talk”. On the credibility of non-media sources, participants said:

[giggles] as for the disease die everyone is saying their own. Everyone is saying something. Some say it's from Germany or is it China. Everyone is saying something. So you can't tell who is lying or saying the truth. So as for us we are just there.

(Afia, 45, Junior High School Educated)

However, some factors shaped whether information from non-media sources would be deemed as credible. The first factor was the way the information was conveyed and the seriousness associated with the conveyance. According to a participant, she believed Covid-19 information from her friend because of the seriousness associated with the communication. When asked whether social relationship affected her propensity to believe in the information being conveyed by a non-social media source, she responded:

Naa [no] not really. It depends on how the person say it. If they have a personal experience with it, I will believe.

(Serwaa, 37, Senior High School Educated)

In addition, when the information came from close family and friends, it was more likely to be believed as more accurate than information that came from strangers or even from more distant family and friends. There was a belief that close family and friends are interested in an

individual's welfare and as such, information from them was more likely to be true information.

Two participants stated:

because they are concerned about me so they would always want to inform me. So, I think they will tell me the truth.

(Nana Yaw, 24, Senior High School Educated)

erm because what is going on out there, they are giving me the information so that like conscious about what is going on so that I won't get infected of the virus.

(Cynthia, 37, Tertiary Educated)

Thus, thoughts that family and friends are giving out information about Covid-19 with the primary purpose of protecting an individual from contracting the virus and not with any motive of deceiving or spreading fake news increases the likelihood that such information would be believed.

Whilst non-social media users did not personally use social media platforms, there were some instances where non-social media users obtained secondary information from social media platforms. Three non-social media users stated that they sometimes obtain information from family and friends who themselves obtained information from social media platforms. Some of them stated:

I see it on my friend's social media Efy. Also, radio.

(Osei, 42, Junior High School Educated)

Sometimes the children see things on the net and you will be there then they will come and show you. Videos of the people dying. I saw one where the China people were eating live mouse.

(Ibrahim, 57, No Formal Education)

The sharing of information between social media users and non-users provides a makes it plausible to believe that there may be similarities between social media users and non-users in terms of their views on Covid-19, and this was found to be the case.

4.4.1 Views of Non-Social Media Users on Covid-19

Non-social media users did not differ much in their conception of the cause of the Covid-19 pandemic and its origins. However, one nuance in the explanation of the cause of the virus by non-social media users was noticeable. Non-social media users demonstrated a higher level of uncertainty when discussing the country from which the virus originated. Unlike social media participants, non-social media participants were more likely to state numerous countries or even mention a wrong country of origin when discussing the country of origin of the Covid-19 virus. For instance, some participants stated:

[giggles] as for the disease dier everyone is saying their own. Everyone is saying something. Some say it's from Germany or is it China. Everyone is saying something. So you can't tell who is lying or saying the truth. So as for us we are just there.

(Afia, 45, Junior High School Educated)

they say it come from London. They say it came through air. It is airborne.

(Abigail, 31, Senior High School Educated)

The main reason for this nuance between the response given by social media users and non-social media users when discussing the country of origin is that non-media sources were a major source of information for non-social media users, and this was found to be more likely to lead to uncertainty about the country of origin of Covid-19.

Notwithstanding the nuance, six non-social media users similarly held the view that the virus was a human creation.

[giggles] as for corona virus I heard them say it's from China. Yeah from there. They said it's the Chinese who sat down and created the virus and shared it. That they want to rule over the world. Instead of having America rule the world, Chinese want to also rule the world

(Serwaa, 37, Senior High School Educated)

I heard that the China people create the disease to kill us blacks. They don't like us so they want to kill all of us. That's what I heard.

(Ibrahim, 57, No Formal Educated)

Three non-social media users simply stated that the Covid-19 virus originated from animals in China and the West without intimating that its existence was a deliberate creation. Some participants stated:

Me I heard that some Chinese man ate a dog or is it bat and got the thing and now spread it. I even see some video my friend showed me where the dog... they don't cook it well before they eat. These Chinese people hmm. They just eat anything by heart.

(Maame Yaa, 39, Junior High School Educated)

The disease come from animals erh bats. Someone go to eat bat and the sickness got to him and then from there is spread to us here.

(Abena, 28, Junior High School Educated).

The final participant in this section also stated that he is simply aware of the existence of the pandemic or virus, but is unaware of its pathogenesis. When asked about the cause of the virus, the participant responded "It is killing a lot of people. But what cause it dier only God can tell us." (Nana Yaw, 24, Senior High School Educated).

Another set of views on Covid-19 were views on effective treatment and prevention methods. Non-social media users, like social media users, mentioned some WHO-approved treatment and prevention methods and some non-approved prevention and treatment methods. Nose masks and washing of hands for example, were deemed to be essential in preventing the contraction of the virus.

all the time I make sure I am in my nose masks so I don't get the Ebola... erh the Corona. And when I go out and come to I wash my hand. The president said it will prevent the virus so I have been doing it.

(Cynthia, 37, Senior High School Educated)

oh as for this disease dier they say if you wash your hands and don't touch your mouth by heart it won't affect you. But the hands too not all the times we get chance to do. But we do. And mask too. That one kraa if you don't have it some places won't allow you enter so that one we have no choice [laughs]

(Osei, 42, Junior High School Educated)

Like the social media participants, non-social media participants also cited some home remedies that could be used to prevent the virus and to treat a person infected with the virus. These home remedies included neem tree, fever grass, licking vitamin c, boiling pawpaw leaves in water, and eating fruits and vegetables.

I just make sure I lick my vitamin c and then I take my fever grass... my friend said she got it and she drank neem tree and fruits and cucumber and licking vitamin c and drank ... what is this medicine even?... and she survived.

(Serwaa, 37, Senior High School Educated)

Our grandparents did not have some of these sicknesses because they took the herbs seriously. Now we say we want white man medicine and that one our body does not take it in well. In my house I make sure all the children and my wives take neem tree. That one no problem with all these new diseases.

(Ibrahim, 57, No Formal Education)

Further, two non-social media users communicated their negative sentiments on the use of vaccines as a method of prevention. According to the participants, vaccines were part of a grand scheme by the West or by China to depopulate the earth and to engender white-dominance. In the words of one participant,

The medicine when you take it it will poison your blood and if you are not strong then it will just kill you. That is what the white people want to do. Those that the virus could not kill, they will just kill them with the virus hmmm...eyi the medicine.

(Ibrahim, 57, No Formal Education)

The participant's response revealed his existing belief that some actors are actively seeking to cause harm to him or the black race.

4.4.2 Verification of Views and Knowledge about Covid-19:

Non-social media participants were asked how they verified information they received from their information sources. Participants were asked what their initial action was upon receipt of Covid-19 related information, the circumstances under which they would think verification of

the information is necessary, how verification occurred, and what happens after verification of a piece of information.

For most participants (six participants), being conversational with the information they received was the initial action they usually took upon receipt of Covid-19 information. It was noticed that there is a nuance between sharing information and being conversational with information. Sharing information involved the active act of conveying information to people for the primary act of informing and not discussing the shared information. Being conversational with received information, however, included the base act of sharing information for further discussion, comparisons with already known facts or shared believes, and sometimes with the main purpose of merely interacting. Data gathered from the participants revealed that the severity of the Covid-19 pandemic coupled with various State actions has made the pandemic an “interesting” talking point. Two participants captured this as follows:

When I hear something sometimes, I tell my people and we will talk about it to see if it is right. Sometimes we even argue about it and laugh [giggles]. The economy come make hard so you just find ways to happy yourself small.

(Charles, 31, Senior High School Educated)

This corona dier everyone is saying what they hear. So you too when you hear something you too you saying. Everyone is saying.

(Serwaa, 37, Senior High School Educated)

Sometimes, participants upon their reception of a Covid-19 related information simply did nothing. This was particularly the case for information received from non-media sources such as from family and friends or even distant persons. There was some recognition that information from non-media sources is equally conversational and not to be construed with utmost seriousness especially when not corroborated by a traditional media source. Further, doing nothing after receiving Covid-19 news was the usual state for information that did not

overtly instruct a course of action. Participants were asked what they did when they received information from family and they responded:

As for me I just listen. Everyone is saying some and we are also listening.

(Charles, 31, Senior High School Educated)

Corona if you are going to follow what everyone is saying you will get confuse. Some are saying this others are saying that. So me I advise myself that unless the president himself it, I won't mind anybody. Some people will just create stories ... super stories and come and give us [giggles]

(Cynthia, 37, Senior High School Educated)

For Cynthia (37, Senior High School), the prevalence of contradictory information caused her to rely on a particular source of authority for Covid-19 related news, and this source was the president.

Amongst the participants who did not use social media, information was rarely verified. It was observed that the fact that non-social media users had no personal access to internet enabled-devices made verification of information particularly difficult, and they had to rely on non-internet sources for verification. Nonetheless, verification still occurred under two conditions. The first condition is when the newly acquired information is diametrically opposed to what the person acquiring the information considers as facts. Whilst there is a high propensity that the newly acquired contradictory information or fact would be discarded, there was still the possibility that the receiver of the information would seek to attain the veracity of the newly acquired information. Participants were asked when they will choose to verify newly acquired information and some responded:

Oh if it is telling me to do something I don't do already or erhm something I don't believe in then I can confirm to see if it is right.

(Serwaa, 37, Senior High School Educated)

First, they said when we go to the mosque we should stand apart from each other. Normally we stand with arms... shoulders and toes touching each other. So, I had to

ask the imams [Muslim scholars] if that is allowed in Islam. Introducing new things in religion is bad so you have to ask.

(Ibrahim, 57, No Formal Education Educated)

The second condition under which non-social media participants decided to verify the information was the significance of the information or the significance of the change the information directs. When novel information was obtained, its nature, whether significant or not, shaped whether recipients of the information would seek to verify such information. The imposition of lockdown for instance, was significant and required verification. A participant stated that “when they said we should go on lockdown erh, I didn’t know whether it was curfew or not. So, I asked and they showed me and then I understand.” (Serwaa, 37, Senior High School Educated).

A participant who stated that she heard that “fever grass” is an effective treatment against Covid-19 said she did not feel the need to verify that information because she was already aware of the effectiveness of “fever grass” in fighting various ailments. When asked about Effective treatment methods, the participant responded “I just make sure I lick my vitamin c and then I take my fever grass”. The participant was then asked whether she verified the information on fever grass and she responded “me I was already taking it so when I heard it I just continued.” (Serwaa, 37, Senior High School Educated).

When non-social media participants decided to verify information, verification occurred in two primary ways. The first primary way entailed asking family and friends for their opinions on a particular set of facts. This could entail asking them to use internet sources to ascertain the veracity of an information. One participant said:

My son sometimes check things for me. He has an iPhone so if I need anything, I just ask him and then he will check on YouTube and Facebook.

(Osei, 42, Junior High School Educated)

Verification could also entail asking friends if they have heard a particular piece of information during face to face conversations about Covid-19 or asking friends about their personal experience with a particular suggested remedy or prevention method. The participant below described how verification occurred for her and the conditions under which they occur:

When you hear something that you are not sure if it will work you can ask to see maybe one of your friends has done it and can advise you. It's not everything you just hear and do sometimes you have to ask. Some of the things can cause you problems later if you don't even do it well so you ask and be sure.

(Serwaa, 37, Senior High School Educated)

The second primary means of verification was the use of traditional media platforms. This entailed the act of passively waiting to confirm if a piece of information in need of verification would be repeated by other traditional media platforms. For instance, a participant upon obtaining information from Peace FM (a local radio station) may wait to confirm if other radio platforms would repeat the same piece of information. Maame Yaa, a participant, narrated how she verified information using this method:

If I hear it for the first time and it is sounding some way [not immediately believed], I will keep listening maybe later they will say it again. Or sometimes when you change channel you will hear them say it again and you know that it is right.

(Maame Yaa, 39, Junior High School Educated)

Post verification, non-social media participants were more likely to bring up such information during face to face conversations with family and friends. Verification seemed to make one an authority on the Covid-19 related subject under discussion and an individual who was known to have facts about Covid-19 was usually differed to in instances of dispute about the facts of Covid-19. A participant, excitedly narrated how his profound engagement with news on Covid-19 has made him the go to person for Covid-19 related information:

As for me everyone knows I don't miss the news so when they are arguing I will be there and they can come for me to show them. Someone even called me Doctor Corona [laughs] cos the president ... cos I listen to all the things the president have to say and the ...and the media yeah.

(Osei, 42, Junior High School Educated)

Another consequence of verification was that post-verification, an individual may carry out the directives contained in the verified information. One participant said:

At first, I heard that neem tree can cure corona. Me what I know is that it is good for malaria and fever and those things but as for corona I wasn't sure. But my friends all say it is good when I asked them so now I do it once in a while and drink.

(Maame Yaa, 39, Junior High School Educated)

It is noticeable that similar to the social media participants, verification did not always result in the ascertainment of accurate information. Thus, what is characterised as verified information may simply be a repetition of misinformation.



CHAPTER FIVE

ANALYSIS AND DISCUSSION

5.1 Introduction:

This chapter discussed and analysed the research findings presented in chapter four. In addition to this introductory section, the chapter has two sections. The first section analysed and discussed the views social media users and non-users held about the Covid-19. Views on Covid-19 includes views on cause of the virus and effective treatment and prevention methods. The second section discussed the verification practices of social media users and non-social media users. This includes discussions on factors that shape verification behaviours, why participants use certain means of verification, and the consequences of verification.

In discussing the research findings, this chapter made extensive reference to existing scholarly research on fake news in the context of Covid-19, literature on information verification in the context of fake news. Further, this section leveraged two sociological theories to further ground the study in sociological research. These theories, extensively discussed in chapter two of this study, consisted of self-indication theory by Herbert Mead and the theory of social action propounded by Talcott parsons.

5.2 Views Participants Hold about Covid-19 and Its Theoretical Implications:

In this study, two categories of views were ascertained from all participants. The first category of views was on the cause of the virus. The second category of views were on the prevention and treatment of the virus.

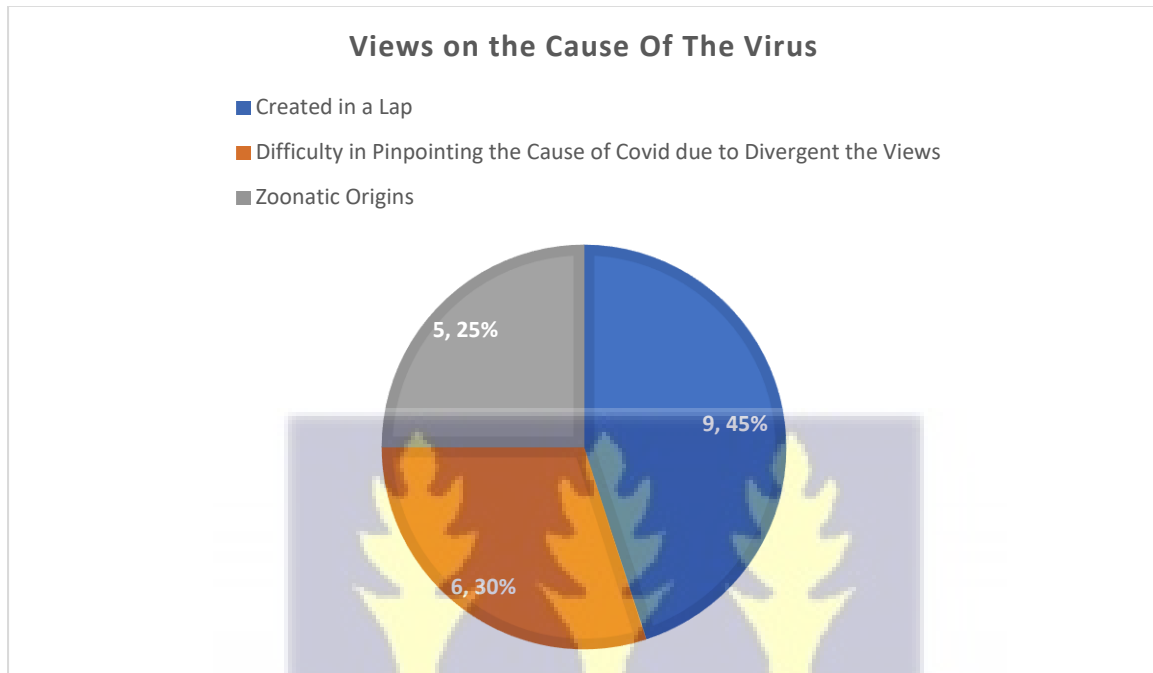


Figure 3: Views on the cause of Covid-19

On the cause of the virus, three prevailing opinions existed amongst all the participants. The first and most often expressed view, held by nine out of the twenty participants, was that Covid-19 was a human creation. Some of the nine participants who held this view believed that the virus was created for geopolitical reasons such as the attainment of global hegemony, others believed the casualties were the end consciously pursued by powerful nations, and others had no reason for the creation of the virus but still believed it was created.

The view that Covid-19 was created was a popular view reported by other studies (Bernard, Akaito, Joseph, & David, 2020; Romer & Jamieson, 2020; Stein, et al., 2020). For instance, in a survey carried out by Romer and Jamieson (2020), it was discovered that about ten per cent of participants believed that the Covid-19 virus was created by the US government, and twenty-

three per cent of participants believed that the virus was created by the Chinese government. According to Bernard et al. (2020), a prevalent view had it that the Covid-19 pandemic was a manifestation of the bacteriological war intent of the United States or the Chinese government.

According to Bernard et al (2020), some common views were that

the virus was created in a lab and was released voluntarily to achieve geopolitical (e.g. a made-up story circulated in Italy that an American veteran was paid to spread the virus to Europe) or economic gains (e.g. A French research centre was accused of creating the virus in 2004 to sell its patented vaccine).

(Bernard et al., 2020, p. 2)

Essentially, the findings in this study on the virus being created by humans and Bernard et al.'s (2020) similar findings give credence to Wong et al.'s (2021) point on misinformation transcending geographical boundaries during the Covid-19 pandemic.

The second opinion on the cause of the virus, expressed by six out of the twenty participants, was that it was difficult to accurately state the cause of the virus. This opinion was a consequence of the plethora of contradictory opinions on the real cause of the virus. Participants in this category usually demonstrated their awareness of the contradictory opinions on the cause of the virus, but ended up concluding that they were uncertain of what to believe. This state of confusion or uncertainty was one of the consequences of fake news captured by Rapp and Salovich (2018). According to Rapp and Salovich (2018, p. 234), “an unfortunate consequence of reading inaccurate information is that people begin to express uncertainty about the validity of ideas they should be confident are obviously true”. Research findings by Tsifti, et al. (2020) also show that even in instances where mainstream media platforms reported fake news for the sole purpose of correcting such news and properly labelling them as fake, such reportage might lead to a state of uncertainty as some audience might believe that there was a

chance for the fake news information being right. Tsfaty et al. (2020, p. 166) concluded that “doubt (instead of an outright rejection) may be the undesirable consequence of mainstream news coverage of fake news.”

The final opinion on the cause of the virus, expressed by five out of the twenty participants, was that the virus had zoonotic origins or that the virus stemmed from nature without any active or intentional human orchestration. Whilst this is the predominant scholarly position on the cause of the virus, (Morens, et al., 2020; Shereen, Khan, Kazmi, Bashir, & Siddique, 2020), the fact that it was the least held view, showed the massive effect of misinformation of fake news in the Ghanaian society, which is that it drowns out true information.

The theories of social action and self-indication provide valuable insights into participants' views on the cause of Covid-19. From the perspective of the theory of self-indication, explanations exist for why people feel uncertain about the cause of the virus or effective treatment methods and why they believe in certain pieces of misinformation on the cause and treatment of Covid-19. For instance, the feelings of uncertainty about the cause of the pandemic, despite being aware of a plethora of causal explanations from a wide range of sources, is a consequence of self-indication where doubt or uncertainty is seen as the most pragmatic mental state. Blumer (1986, p. 81) in explaining self-indication states that before an individual undertakes an action, the person “proceeds by pointing out to himself the divergent things which have to be taken into account in the course of his action...”. In applying this theoretical perspective, participants in this study considered the diverse and contradictory opinions on the cause of the virus, and self-indicated to themselves that none of the explanations was convincing enough, leading them to settle in the middle, a state of doubt and uncertainty. At the very least, it can be concluded that misinformation in the context of Covid-19 has the effect of engendering confusion as it presents an individual with too much

information, often contradictory and dismissive of other contrary information, including legitimate and accurate information.

Further, Parsons' theory of social action provides two explanations for why people feel uncertain about the cause of the Covid-19 virus and pandemic. The first explanation is that the presence of misinformation is, in Parsonian terms, "conditions" (Parsons, 1937) which inhibit the actualization of the end of attaining certainty on the cause of Covid-19. As explained by Parsons (1937), these conditions are factors that are beyond the control of an individual or agent and that affect the attaining of an end. Most participants could not attain certainty on the cause of the Covid-19 virus and pandemic because they cannot control the influx of contradictory information proliferated concerning the cause of Covid-19.

A second way of looking at the feeling of uncertainty from the perspective of Parsons' social action theory is that social norms consider it acceptable for people to have uncertainty as an end. According to Parsons (1937), social norms dictate what ends individuals can pursue for maintaining social order. Arguably, and given the immense impacts of fake news, being uncertain about the cause of the ailment is more socially acceptable than holding the wrong view about the cause of the ailment. It can be concluded that participants who expressed uncertainty on the cause of Covid-19 believe that it is acceptable to be uncertain, especially in the context of contradicting views. Uncertainty is less likely to be a socially acceptable end if there was a global consensus on the cause of Covid-19. The presence of misinformation on the cause of Covid-19 arguably alters the social norms on acceptable ends.

For participants who held the view that Covid-19 is a deliberate human creation, the theory of self-indication would advance that such a view is engendered by a belief that some powerful countries or actors were deliberating investing in their elimination or suffering. These participants conceptualized themselves as a social unit different from other social units

(countries or actors) and targeted for harm through Covid-19 by those other social units. It can be plausibly argued that people would only self-indicate to themselves that Covid-19 is a human creation if they already believe that some actors have an incentive to harm them and Covid-19 is a manifestation of that incentive, or if the piece of information on the human origins of Covid-19 was more convincing other pieces of information to the contrary.

Beyond exploring the views participants held about Covid-19, participants were also asked about their views on effective treatment and prevention methods. Two sets of views existed on effective treatment and prevention methods. The first set of views on effective treatment and prevention methods were views being promoted by health experts, global health institutions such as the World Health Organization and national governments in their dissemination of information on Covid-19. These views included washing hands, maintaining social distancing, and wearing of nose masks (JinShena, et al., 2020; WHO, 2021). The second set of views on effective treatment and prevention methods are those that have either not been proven or those that have been actively discounted or characterised as myths by health experts and the WHO. These include the views that exposure to heat, rinsing the nose with saline, consuming certain herbs like neem tree, eating various indigenous Ghanaian foods like dawadawa (a flavouring made from the African locust bean tree), consuming vitamin C daily, and eating garlic among others. These two sets of views were not mutually exclusive, as all participants captured at least one unproven or discounted method and at least one proven method when asked to mention some effective treatment and prevention methods.

Various scholars have attempted to investigate the effectiveness of some local remedies as far as the prevention and treatment of the Covid-19 virus is concerned. Whilst some of the preventive methods mentioned by participants have other health benefits, their effectiveness as far as the prevention and treatment of the Covid-19 pandemic has been at best doubted by health researchers, and at worst denounced (Sahoo, Padhy, Ipsita, Mehra, & Grover, 2020).

Sahoo et al. (2020) for instance discussed the veracity of claims that foods such as garlic and lemon, rinsing the mouth with saline, and drinking warm water among others can help in the prevention of the virus. On eating garlic, turmeric, and lemon, Sahoo et al. (2020) stated that whilst such foods contain vitamin C which can support the functioning of the immune system, there has been no evidence that such Vitamin C-rich foods could protect someone from contracting Covid-19. Further, Sahoo et al. (2020) posited that the view that rinsing with saline could help protect an individual from the Covid-19 virus because of the reasoning that the virus could die in water was not grounded in any evidence. Sahoo et al. (2020), however, admitted that the gargling of saline may help soothe a sore throat effectuated by any flu-like infection but could not protect a person from contracting the virus.

From the perspective of social action theory, people believed in the effectiveness of local remedies such as dawadawa or saline because they are easily available for use in attaining the concrete end of good health. Thus, when people are told that an easily accessible means offers effective prevention or treatment of Covid-19, they are more likely to use those means instead of trying to access other methods or solutions such as vaccination among others.

Further, the normative element of social action theory also implies that social norms in Ghana consider local remedies as an acceptable means of achieving the end of prevention or treatment of Covid-19 may be analysed as being effectuated by the reasoning that local remedies have been a normative means of actualizing health needs. Thus, and following from Parsons' (1937) discussion of the normative element of social action, a society where local remedies are deemed deleterious to the actualization of health goals would be a society where fewer people use local remedies, despite their accessibility. The fact that participants considered local remedies as an acceptable way of preventing the contraction of Covid-19 reflects the Ghanaian society's acceptance of the use of local remedies as an acceptable remedy during Covid-19.

From the perspective of Mead's (1934) theory of self-indication, it can be further analysed that participants decided to use local remedies because doing so would not give rise to societal reprisal. In the words of Mead (1934, p. 244), "a human individual is able to indicate to himself what the other person is going to do, and then to take his attitude on the basis of that indication." The fact that people made use of local remedies in Ghana in their fight against Covid-19, gives credence to an argument that they have analysed the attitude of Ghanaians on the use of local remedies for treatment, they believed other people acknowledge the effectiveness of those remedies, including against Covid-19, and they self-indicated to themselves that information on the effectiveness of local remedies is accurate. The findings of Lazer et al. (2018) on confirmation bias and how it promotes belief in misinformation give credence to this argument. According to Lazer et al. (2018), people are likely to believe in a piece of misinformation if it confirms their pre-existing beliefs/attitudes. The responses from participants in this study revealed that before Covid-19, people already considered local remedies as effective, and simply continued to believe that those local remedies are equally effective against the Covid-19 virus.

It is essential to note that social media users and non-users were quite similar in terms of their views on the cause, prevention, and treatment of Covid-19 was concerned, and view or belief was found to be exclusive to a category of participants. A possible explanation for this general similarity in views is that through social interaction, ideas are exchanged between social media users and non-social media users in a way that leads to the development of a common knowledge base on a subject. Mead (1934) in his discussion of self-indication intimated this explanation when he stated that "the sort of intelligence he [anyone in a social setting] has is not based on physiological differentiation, nor based upon herd instincts but upon the development through the social process..." (p. 244). The social process of interaction invariably leads to the exchange of information obtained from different sources, such as those

obtained from social media platforms and those obtained from traditional media platforms. Thus, irrespective of people's participation in sub-spaces such as social media, their participation in the general space of society makes it possible for ideas from the general space to infiltrate the sub-spaces and vice versa. From the data gathered, it was clear that social media participants and non-participants shared information they had about Covid-19. This contributed to the exchange of misinformation between social media participants and non-social media participants.

Further, and despite the scholarly consensus that misinformation is more likely to spread in the social media space than it is to spread in the traditional media space (Allcott & Gentzkow, 2017; Desigaud, et al., 2017; Neudert, Kollanyi, & Howard, 2017; Vosoughi, Roy, & Aral, 2018; Jamil & Appiah-Adjei, 2019; Halpern, et al., 2019), findings from this study reveals that social interaction between social media users and non-users may make non-social media users equally vulnerable to misinformation from social media. Thus, even if non-social media users are not in a space where misinformation is rampant, the fact that they are in spaces with others who are in spaces where misinformation exists, made it possible for the transmission of the misinformation to spaces where misinformation is less prevalent.

Notwithstanding the general similarity in views amongst social media users and non-social media users, it was observed that more non-social media users believed in the idea that the Covid-19 virus is a human creation. In total, six non-social media users believed that the virus was a human creation whilst only three social media users believed the same, representing a hundred per cent difference. As stated earlier, the view that the virus was a human creation is contrary to the prevailing and medically backed view that the Covid-19 virus was zoonotic in character (Morens, et al., 2020; Shereen, Khan, Kazmi, Bashir, & Siddique, 2020).

One reason was found to be responsible for the asymmetry in the number of non-social media users who believed the virus had a human creation. From the data gathered, non-social media users were more likely to participate in face-to-face conversations about Covid-19 with others than social media users. Thus, any piece of information about Covid-19, whether true or false, is likely to be the subject of face-to-face conversations amongst non-social media users. During the conversations non-social media participants had about Covid-19, and following from Giroux's (2018) assertion that in a world replete with fake news "news has become entertainment and echoes reality rather than interrogating it" (p. 202), theories or opinions that are comparatively more entertaining were usually the focus of such conversations. Consequently, and as captured by some non-social media participants, discussions about Covid-19 contained discussions about its creation by humans. According to Pennycook et al. (2019), prior exposure to fake news increases the likelihood of people subsequently believing such fake news. The discussion of the human-creation theory of the Covid-19 virus because it is arguably more entertaining, may lead to the current situation where more non-social media users believe in that theory.

Another slight difference between social media users and non-social media users was that social media users were more certain when they adopted a view of the Covid-19 virus. It was observed that non-social media users had some level of uncertainty when discussing the cause of the virus. This comparative uncertainty could be the consequence of non-social media obtaining their information from multiple conversational settings.

In conclusion, the fact that participants held onto to views that have been denounced by health experts, provides prima facie evidence that verification of information either does not occur, or when it did, it did not always lead to the rejection of discredited information. In addition, the fact that people held ideas such as the effectiveness of sunshine and saline against the

Covid-19 virus was reflective of the proliferation of misinformation in the Ghanaian social media and non-social media space.

5.3 Verification Practices of Participants:

This section discusses the verification practices adopted by participants in their attempt to ascertain the veracity of Covid-19-related information. The section explores the initial action taken by participants upon receipt of Covid-19-related information, how they proceed with information verification if they decide to verify, the factors that motivate participants to verify, and the outcomes of verification. The theories of social action and self-indication, together with existing research, would be used to guide the discussion.

Upon the receipt of a piece of information on Covid-19, the initial action taken by twelve out of the twenty participants was to share the information with family and friends. Sharing information with others as an initial action was informed by the view that the information is accurate, mainly because other family and friends mostly shared it out of a sense of care for one's wellbeing. This finding supports existing scholarly works which found that people are more likely to believe information if such information is obtained from proximate sources (Kang, Bae, Zhang, & Sundar, 2011; Tandoc, et al., 2018).

Parsons' (1937) theory of social action provides two possible explanations on why sharing information with others is the initial step taken by most participants. First, Parson's (1937) posits that a social action requires the actor to utilize resources, known in Parsonian terms as means, to achieve an end. Essentially, those means ought to be within the control of the actor before they can be used in the actualization of an end. It can therefore be plausibly contended that participants readily chose to share received information with others because the means of doing so, which is the internet or face-to-face communication (especially by non-social media participants), is easily accessible to achieve the end of keeping others informed on Covid-19. This contention is grounded in scholarly literature as Halpern

et al. (2019, p. 215) have found that most people share (mis)information on social media because social media allows people “produce and share information at little or no cost”.

The second possible explanation for why most participants shared information with others as an initial action is that the participants characterised sharing information as helping others stay healthy, which is a normative end desired in Ghanaian society. According to Parsons (1937), societal norms inform the ends people desire to achieve. Ghanaian society is replete with norms that promote collective interests as opposed to individualism. Lystad (1960, p. 460) for instance notes that Ghanaians are taught to be “thoughtful, generous, kind to one's fellow man, or else one will be severely punished” and to share beneficial resources with others, especially those within a person’s social network. Consequently, and in the context of a pandemic where people are desperately in search of information on the pandemic (Moscadelli, et al. 2020), any piece of information may be quickly and instantly shared to “help” others stay healthy.

When people believe that sharing information with others is a desirable end which ought to be pursued, they would have begun the process of self-indication, which continues till they eventually share the information with others. From the perspective of social action theory, “a human individual is able to indicate to himself what the other person is going to do, and then to take his attitude on the basis of that indication.” (Mead, 1934, p. 244). It is therefore concluded that the attitude of sharing information with others as an initial action is because participants indicate to themselves that the information is accurate and that the persons to whom the information is being shared needs that information.

Amongst the remaining participants who did not share information as their initial action upon the reception of Covid-19-related information, two participants claimed they verified the received information, whilst four others did nothing as they waited for further corroboration from other sources. For the two participants who verified information as their initial action upon receipt of the information, the act of verification is a self-indicative act stemming from a realization that other

people or groups have perverse incentives to mislead and that the verification of information is a necessary end that must be pursued.

The finding that some participants verified information because of the prevalence of misinformation contributes to our understanding of how the normative element of the theory of social action develops. It is contended that an end becomes normative or even imperative if prevailing societal circumstances require its actualization for the maintenance of social order or the avoidance of harmful consequences. In the context of the Covid-19 infodemic, information verification has become an extremely important end and is actively being championed as means of curbing the Covid-19 infodemic (Sun, 2022).

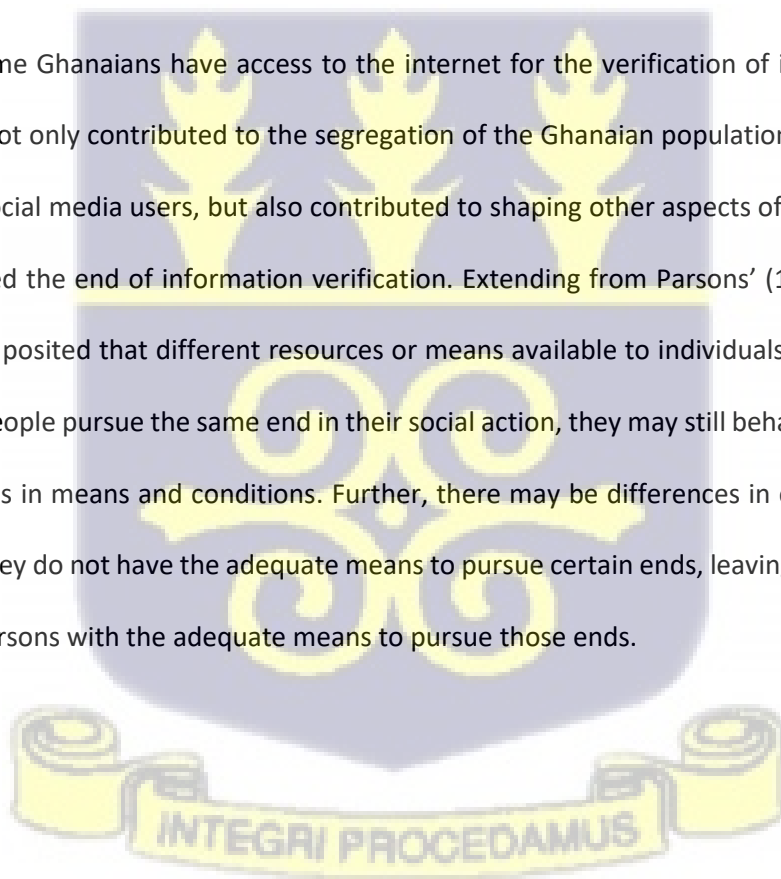
Whilst verification was not the initial action taken by most participants, some of them generally stated that when they felt a piece of information might be inaccurate, then they pursued verification. Thus, whilst having true information is an end for all the participants (Parsons, 1937), it can at best be understood as a contingent end, an end only pursued after a self-indicative outcome of uncertainty in the veracity of received information. The way information is verified is shaped by factors such as participants' subjective conceptions of authentic sources of information and what constitutes information verification.

Especially for the social media participants, simply looking up the information on other internet sources was enough to meet the goal of verification. There was a high likelihood that repeatedly encountering the same piece of information from different internet sources would lead to the conclusion that the information being verified was accurate and therefore verified. Within the social media space, Ahiabenu et al., (2018) found that as false news starts to trend and is repeatedly encountered, it may be believed as correct information. The implication of participants considering verification to have occurred simply by reading the same piece of information from other sources is that once a piece of information is widely shared and reposted by multiple internet sources, there is a high likelihood that it would be considered true and verified. Holders of such information,

consequently, would be convinced that the information they hold is verified and reflective of medical knowledge.

For non-social media participants, traditional media sources were the main medium for verifying information. The fact that non-social media participants primarily relied on traditional media sources where broadcasted information was beyond their control as information-recipients, meant that they had to constantly follow news coverage on traditional media platforms in hopes that a piece of information would be broadcasted. Thus, and unlike social media participants who usually had access to the internet through their mobile phones and could easily verify information at any time, non-social media users without the means of a mobile phone were faced with the unique condition of restricted access to the internet, a key verification platform.

The fact that some Ghanaians have access to the internet for the verification of information whilst others did not, not only contributed to the segregation of the Ghanaian population into social media users and non-social media users, but also contributed to shaping other aspects of their lives such as how they pursued the end of information verification. Extending from Parsons' (1937) social action theory, it can be posited that different resources or means available to individuals affect their social actions. When people pursue the same end in their social action, they may still behave differently due to the differences in means and conditions. Further, there may be differences in ends when people recognize that they do not have the adequate means to pursue certain ends, leaving the pursuance of those ends to persons with the adequate means to pursue those ends.



CHAPTER SIX:

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

6.1 Introduction:

This chapter summarised the key findings in this study, by drawing some conclusions from the research findings, and making recommendations for further research. The summary of findings was guided by the main and specific objectives of this research, and essential themes created after interviews with participants. The conclusions section gave finality to each research objective. The recommendations section was guided by the limitations faced whilst undertaking this research.

6.2 Summary of Findings

This study found that both social media participants and non-social media participants held some misinformed views about the Covid-19 pandemic in terms of cause and effective treatment methods. On the cause of Covid-19, a total of nine participants believed Covid-19 is a human creation by powerful actors for geopolitical reasons among others. A total of six participants mentioned that they were not sure about the cause of Covid-19 because of the prevalence of contradictory claims on the actual cause of Covid-19. For the remaining five participants, Covid-19 had zoonotic and natural origins.

Beyond stating their views on the cause of Covid-19, participants in the study also stated their views on effective treatment and preventive methods. Participants' views on effective

treatment and prevention methods were found to include both methods that were denounced by health experts as inaccurate and methods recommended by health experts. Among others, most participants believed that saline, the sun in Ghana, and local remedies provided protection against Covid-19. Simultaneously, most participants believed in the effectiveness of social distancing, handwashing, and vaccination.

The views participants held on the cause of Covid-19 and effective treatment and prevention methods were obtained from several sources. Social media participants obtained information about Covid-19 from the internet, especially on social media, their interactions with others, and traditional media. For non-social media users, secondary information was obtained from social media users and non-users, whilst primary information was obtained from traditional media sources.

It was found that participants rarely verified information or even if they did, did so after taking other actions such as sharing the information with others. Only two participants in this study mentioned that they verified information as their first action upon receipt of a Covid-19-related piece of information. Sometimes, participants adhered to health directives contained in information shared with them by others without verification. The main reason for this was the fear of being harmed by Covid-19 if they failed to adhere to the health directives contained in the received information. The main reasons why participants rarely verified information were because of the trust they had in the sources of the information, the conformity of the received information with the existing knowledge and beliefs of the recipient, and the feeling that one must quickly share information with others to help protect them against Covid-19.

Whilst verification was rare, particularly as an initial action upon the receipt of a Covid-19-related piece of information, some participants mentioned that they verified information if they had cause to believe that the information may be inaccurate. Amongst the participants who

verified information as their initial action upon the receipt of the information, there was an understanding that misinformation is rampant and there was the need to check and ascertain the veracity of received information. In addition, verification of information could occur if the received information was contrary to existing beliefs and views or if the information was considered to have substantial consequences if true or false.

For social media users, checking the internet to corroborate a piece of information was how they verified information. Sometimes, an attempt to verify information led to confusion and uncertainty, especially after the discovery of contrary information during verification. Verifying information also increased participants' confidence in adhering to health directives if the information being verified turned out to be factual.

For non-social media users, the main means of verification was simply to wait for the information to be reported or conveyed by traditional media sources. The main consequence of information verification for non-social media participants was that verification made one an authority on Covid-19 during conversations about Covid-19. Especially on preventive and treatment methods, verifying information and finding it to be true translated into adherence to the health directives contained in the information.

6.3 Conclusion

The main objective of this study was to examine how Ghanaian social media users and non-users in Accra verified the views they held about the Covid-19 pandemic. To achieve this main objective, four sub-objectives were adopted. The first sub-objective was to explore the various views social media users held about the Covid-19 pandemic. The second sub-objective was to explore how social media users verified the views they hold about the Covid-19 pandemic. The third sub-objective was to explore the various views non-social media users hold about the

Covid-19 pandemic. The fourth and final sub-objective source explores how non-social media users verified those views they held about Covid-19.

On the first sub-objective, social participants were asked about their views about Covid-19, especially in terms of cause and effective treatment and prevention methods. Whilst the participants held some medically endorsed views, the prevalence of medically denounced views amongst the participants presupposed that the views held by participants were either not verified, or even if believed to have been verified, verification did not yield the results of debunking misinformation. This presupposition was subsequently supported by the fact that most participants in trying to justify why they shared information as their initial action upon receipt of the information, believed that the information provided by their sources of information was accurate, and hence did not require verification.

The second sub-objective was to explore how social media participants verified information. When a piece of information was thought to contain misinformation and in need of verification, most social media participants simply checked the internet to see if the information is reported by other sources. It was analysed that such a method of verification may lead to misinformation being confirmed as accurate and verified because of the simultaneous existence of the same pieces of misinformation on several internet sources. This analysis was supported by the fact that some social media participants still held misinformed views despite claiming to have verified their views.

The third objective explored the views of non-social media participants on Covid-19, especially in terms of cause and preventive measures. Like social media users, some non-social media users believed Covid-19 is a deliberate human creation and believed local remedies and WHO Covid-19 recommendations as effective for the prevention and treatment of Covid-19. It was analysed that the similarity between social media users and non-users in terms of their views

on Covid-19 was because social media users were merely participants of a sub-space, the social media space, but still participants of a general space known as society. Such simultaneous participation made it possible for the flow of information from social media users to non-social media users and vice versa. This flow of information enabled the relative homogeneity of views on Covid-19. Despite the similarity between social media users and non-users, it was found that non-social media users were less certain about the views they held about Covid-19 because some of those views were obtained from conversations with others.

The final sub-objective of this study was to explore how non-social media users verified Covid-19-related information. The main source of information verification for non-social media users was traditional media. When non-social media participants received information from others, they either thought the information was for mere conversational purposes and did nothing, or waited to have the received information corroborated by traditional media sources. Unlike social media users who could decide when to verify information, non-social media users were more constrained in terms of when to verify information.

6.4 Recommendations:

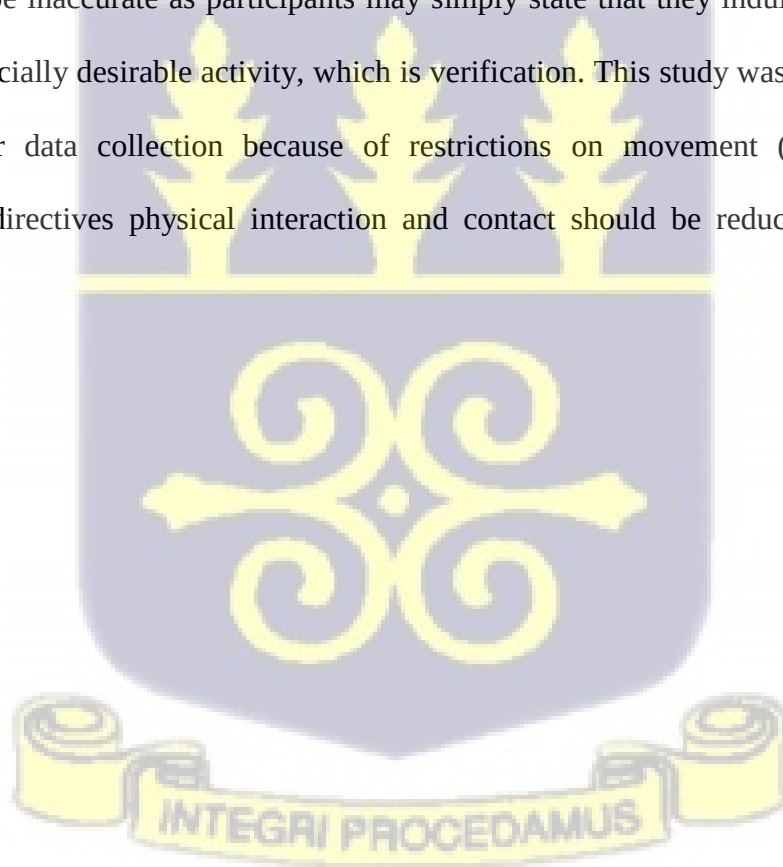
Three recommendations emerged from this study. From the finding that people are likely to believe the information they obtain from proximate sources as accurate, efforts to curb the spread of misinformation should inform the public that information from proximate sources may be inaccurate. The main reason for this is that proximate sources, such as family and friends, are usually not the generators of information and are in most instances simply relaying information they received from other sources.

Secondly, there is a need for health experts to acknowledge and delimit the health effects of local medication such as neem tree (*Azadirachta indica*). This delimitation is essential because there is a belief that such local medications are effective against Covid-19. Acknowledging the

health benefits of such local remedies helps in engendering trust in health experts, whilst delimiting the health benefits helps people appreciate that whilst some local remedies are beneficial, they are only beneficial for some ailments.

Further, and flowing from the finding that some participants verified information because of their awareness of the prevalence of misinformation, it is recommended that people are constantly reminded about the prevalence of misinformation as a way of getting them to check the veracity of a piece of information upon receipt.

For future research, it is recommended that observation be incorporated as part of the data collection instruments. The main reason for this is that claims that verification of information occurred may be inaccurate as participants may simply state that they indulged in what was considered a socially desirable activity, which is verification. This study was unable to utilize observation for data collection because of restrictions on movement (lockdowns) and governmental directives physical interaction and contact should be reduced to the barest minimum.



REFERENCES

- Acharya, A. S., Prakash, A., Saxena, P., & Nigam, A. (2013). Sampling: Why and How of it? *INDIAN JOURNAL OF MEDICAL SPECIALITIES*, 4(2), 330-333.
- Africa Center for Strategic Studies (2020, March 27). *Five Myths about Coronavirus in Africa*. Retrieved from Africa Center for Strategic Studies: <https://africacenter.org/spotlight/five-myths-about-coronavirus/>
- Ahiabenu, K., Ofosu-Peasah, G., & Sam, J. (2018). *Media Perspectives on Fake News in Ghana*. Retrieved from <http://penplusbytes.org/wp-content/uploads/2018/05/FAKE-NEWS-STUDY.pdf>
- Ahinkorah, B. O., Ameyaw, E. K., Hagan, J. E., Seidu, A.-A., & Schack, T. (2020). Rising Above Misinformation or Fake News in Africa: Another Strategy to Control COVID-19 Spread. *Frontiers in Communication*, 5(45). doi:10.3389/fcomm.2020.00045
- Ahmad, T., Khan, M., Haroon, Musa, T. H., Nasir, S., Hui, J., . . . Rodriguez-Morales, A. J. (2020). COVID-19: Zoonotic aspects. *Travel medicine and infectious disease*, 101607.
- Ahmed, W., Vidal-Alaball, J., Downing, J., & Seguí, F. L. (2020). COVID-19 and the 5G Conspiracy Theory: Social Network Analysis of Twitter Data. *Journal of Medical Internet Research*, 22(5), 10.2196/19458.
- Alemanno, A. (2018). How to counter fake news? a taxonomy of anti-fake news approaches. *European journal of risk regulation*, 9(1), 1-5.
- Alkassim, R. S., & Tran, X. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Allcott, H., & Gentzkow, M. (2017). Social Media and Fake News in the 2016 Election. *Journal of Economic Perspectives*, 31(2), 211–236.
- Allington, D., Duffy, B., Wessely, S., & Dhavan, N. (2020). Health-protective behaviour, social media usage and conspiracy belief during the COVID-19 public health emergency. *Psychological Medicine*, 51, 1763–1769.
- Al-Zaman, M. S. (2022). Prevalence and source analysis of COVID-19 misinformation in 138 countries. *International Federation of Library Associations and Institutions*, 48(1), 189–204.
- Andersen, K. G., Rambaut, A., Lipkin, W. I., Holmes, E. C., & Garry, R. F. (2020). The proximal origin of SARS-CoV-2. *Nature Medicine*, 26, 450–452.

- Apuke, O. D., & Omar, B. (2020). Fake news and COVID-19: modelling the predictors of fake news. *Telematics and Informatics*, 56, 101475.
- 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), 1-23.
- Arhinful, E. (2020, October 15). *We're not behind alleged fake websites – Edem Agbana rejects NPP's claims*. Retrieved from CITI Newsroom: <https://citinewsroom.com/2020/10/were-not-behind-alleged-fake-websites-edem-agbana-rejects-npps-claims/>
- Asur, S., & Huberman, B. A. (2010). Predicting the future with social media. In *2010 IEEE/WIC/ACM international conference on web intelligence and intelligent agent technology* (Vol. 1, pp. 492-499). IEEE.
- Attride-Stirling, J. (2001). Thematic networks: an analytic tool for qualitative research. *Qualitative Research*, 1(3), 385-405.
- Bannor, R., Asare, A. K., & Bawole, J. N. (2017). Effectiveness of social media for communicating health messages in Ghana. *Health Education*, 117(4), 342-371.
- Bernard, F. O., Akaito, J. A., Joseph, I., & David, K. B. (2020). COVID-19: the trends of conspiracy theories vs facts. *The Pan African Medical Journal*, 35(147). doi:10.11604/pamj.supp.2020.35.147.25536
- Blumer, H. (1986). *Symbolic Interactionism Perspective and Method*. University of California Press.
- Boodoosingh, R., Olayemi, L. O., & Sam, F. A.-L. (2020). COVID-19 vaccines: Getting Anti-vaxxers involved in the discussion. *World Development*, 136.
- Bovet, A., & Makse, H. A. (2019). Influence of fake news in Twitter during the 2016 US presidential election. *Nature Communications*, 10(1). doi: 10.1038/s41467-018-07761-2
- Boyd, D. M., & Ellison, N. B. (2007). Social network sites: Definition, history, and scholarship. *Journal of computer-mediated Communication*, 13(1), 210-230.
- Bridgman, A., Merkley, E., Loewen, P. J., Owen, T., Ruths, D., Teichmann, L., & Zhilin, O. (2020). The causes and consequences of COVID-19 misperceptions: Understanding the role of news and social media. *Harvard Kennedy School Misinformation Review*, 1(3), 1-18.
- Burkhardt, J. M. (2017). *Combating Fake News in the Digital Age* (Vol. 53). American Library Association. Retrieved from <https://www.journals.ala.org/index.php/ltr/issue/viewFile/662/423>
- Burkhardt, J. M. (2017). History of fake news. *Library Technology Reports*, 53(8), 5-9.
- Busari, S., & Adebayo, B. (2020, March 23). *Nigeria records chloroquine poisoning after Trump endorses it for coronavirus treatment*. Retrieved from CNN: <https://edition.cnn.com/2020/03/23/africa/chloroquine-trump-nigeria-intl/index.html>

- Carr, C. T., & Hayes, R. A. (2015). Social media: Defining, developing, and divining. *Atlantic journal of communication*, 23(1), 46-65.
- Casero-Ripollés, A. (2020). Impact of Covid-19 on the media system. Communicative and democratic consequences of news consumption during the outbreak. *El profesional de la información*, 29(2), 1-11.
- Cinelli, M., Quattrocioni, W., Galeazzi, A., Valensise, C. M., Brugnoti, E., Schmidt, A. L., . . . Scala, A. (2020). The COVID-19 social media infodemic. *Scientific Reports*, 10(16598). doi:10.1038/s41598-020-73510-5
- Constine, J. (2020, March 31). *Facebook deletes Brazil president's coronavirus misinfo post*. Retrieved from Techcrunch: <https://techcrunch.com/2020/03/30/facebook-removes-bolsonaro-video/?guccounter=1>
- Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing*. London: Sage Publications.
- Cuello-Garciaa, C., Perez-Gaxiolac, G., & Amelsvoort, L. v. (2020). Social media can have an impact on how we manage and investigate the COVID-19 pandemic. *Journal of Clinical Epidemiology*, 127, 198-201.
- Davis, C. A., Varol, O., Ferrara, E., Flammini, A., & Menczer, F. (2016). BotOrNot: A System to Evaluate Social Bots. *Proceedings of the 25th international conference companion on world wide web*, (pp. 273-274).
- Desigaud, C., Howard, P. N., Bradshaw, S., Kollanyi, B., & Bolsolver, G. (2017). Junk News and Bots during the French Presidential Election: What Are French Voters Sharing Over Twitter In Round Two? COMPROP DATA MEMO. Retrieved from <http://blogs.oii.ox.ac.uk/wp-content/uploads/sites/93/2017/05/What-Are-French-Voters-Sharing-Over-Twitter-Between-the-Two-Rounds-v9-1.pdf>
- DestinyApuke, O., & BahiyahOmar. (2021). Fake news and COVID-19: modelling the predictors of fake news sharing among social media users. *Telematics and Informatics*, 101475.
- Donalek, J. G. (2004). Phenomenology as a Qualitative Research Method. *UROLOGIC NURSING*, 24(6), 516-517.
- Duggan, M., Ellison, N. B., Lampe, C., Lenhart, A., & Madden, M. (2015). Social media update 2014. *Pew research center*, 19, 1-2.
- Edgerly, S., Mourão, R. R., Thorson, E., & Tham, S. M. (2020). When Do Audiences Verify? How Perceptions About Message and Source Influence Audience Verification of News Headlines. *Journalism & Mass Communication Quarterly*, 97(1), 52-71.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The Benefits of Facebook “Friends:” Social Capital and College Students’ Use of Online Social Network Sites. *Journal of Computer-Mediated Communication*, 12(4), 1143-1168.
- Flanagin, A. 1., & Metzger, M. J. (2000). Perceptions of Internet Information Credibility. *Journalism & Mass Communication Quarterly*, 77(3), 515-540.

- Fox, R. C., Lidz, V. M., & Bershad, H. J. (2005). Introduction. In R. C. Fox, V. M. Lidz, & H. J. Bershad (Eds.), *After Parsons: A Theory of Social Action for the Twenty-First Century* (pp. 2-27). Russell Sage Foundation.
- Freeman, D., Waite, F., Rosebrock, L., Petit, A., Causier, C., East, A., . . . Lambe, S. (2020). Coronavirus conspiracy beliefs, mistrust, and compliance with government guidelines in England. *Psychological Medicine*, 1-13.
- Frenkel, S., Alba, D., & Zhong, R. (2020, March 8). *Surge of Virus Misinformation Stumps Facebook and Twitter*. Retrieved from New York Times: <https://www.nytimes.com/2020/03/08/technology/coronavirus-misinformation-social-media.html>
- Fuchs, C. (2014). *Social media: A critical introduction*. London: Sage.
- Gallacher, J. D., Kaminska, M., Kollanyi, B., & Howard, P. N. (2017). *Junk News and Bots during the 2017 UK General Election*. COMPROP DATA MEMO. Retrieved from <https://blogs.oii.ox.ac.uk/wp-content/uploads/sites/89/2017/06/Junk-News-and-Bots-during-the-2017-UK-General-Election.pdf>
- Gelfert, A. (2018). Fake news: A definition. *Informal Logic*, 84-117.
- Gharpure, R., Hunter, C. M., Schnall, A. H., Barrett, C. E., Kirby, A. E., Kunz, J., . . . Garcia-Williams, A. G. (2020). Knowledge and practices regarding safe household cleaning and disinfection for COVID-19 prevention — United States, May 2020. *American Journal of Transplantation*, 20(10), 2946–2950.
- GHS. (2021, July 23). *Situation Update, Covid-19 Outbreak in Ghana as at 23 July 2021*. Retrieved from Ghana Health Service: <https://www.ghanahealthservice.org/covid19/archive.php>
- Gill, P., Stewart, K., Treasure, E., & Chadwick, B. (2008). Methods of data collection in qualitative research: interviews and focus groups. *British Dental Journal*, 204, 291–295.
- Giroux, H. A. (2018). What Is the Role of Higher Education in the Age of Fake News? In M. A. Peters, S. Rider, M. Hyvönen, & T. Besley (Eds.), *Post-Truth, Fake News Viral Modernity & Higher Education* (pp. 197-216). Springer Nature Singapore Pte Ltd.
- González-Padilla, D. A., & Tortolero-Blanco, L. (2020). Social media influence in the COVID-19 Pandemic. *Scientific report*, 10(1), 1-10.
- Goodman, J., Mwai, P., & Carmichael, F. (2020, August 9). *Coronavirus: Fact-checking fake stories in Africa*. Retrieved from BBC: <https://www.bbc.com/news/53684037>
- Greenwood, S., Perrin, A., & Duggan, M. (2016). Social media update 2016. *Pew Research Center*, 11(2), 1-18.
- Grinberg, N., Joseph, K., Friedland, L., Swire-Thompson, B., & Lazer, D. (2019). Fake news on Twitter during the 2016 U.S. presidential election. *Science*, 363(6425), 374-378.
- GSS. (2013). *2010 Population & Housing Census, Regional Analytical Report: Greater Accra Region*. Accra: Ghana Statistical Service.

- 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.
- GÜNER, R., İ. H., & AKTAŞ, F. (2020). COVID-19: Prevention and control measures in community. *Turkish Journal of Medical Sciences*, 50(SI-1), 571-577.
- Guynn, J. (2020, March 21). *Welcome to the first social media pandemic. Here are 8 ways you can stop the spread of coronavirus misinformation*. Retrieved from USA Today: <https://www.usatoday.com/story/tech/2020/03/19/coronavirus-covid-19-misinformation-social-media-facebook-youtube-instagram/2870277001/>
- Gyampo, R. E. (2017). Social media, traditional media and party politics in Ghana. *Africa Review*, 9(2), 125-139.
- Halpern, D., Valenzuela, S., Katz, J., & Orrego, J. P. (2019). From Belief in Conspiracy Theories to Trust in Others: Which Factors Influence Exposure, Believing and Sharing Fake News. In G. Meiselwitz (Ed.), *Social Computing and Social Media. Design, Human Behavior and Analytics* (pp. 217-232). Springer. doi:10.1007/978-3-030-21902-4_16
- Hargittai, E. (2007). Whose Space? Differences Among Users and Non-Users of Social Network Sites. *Journal of Computer-Mediated Communication*, 13(1), 276-297.
- Hermida, A. (2009). The Blogging BBC: Journalism blogs at “the world's most trusted news organisation. *Journalism Practice*, 3(3), 268-284.
- Hermida, A. (2010). Twittering the News. *Journalism Practice*, 4(3), 297-308.
- Hermida, A., Fletcher, F., Korell, D., & Logan, D. (2012). Share, Like, Recommend. *Journalism Studies*, 13(5-6), 815-824.
- Himma-Kadakas, M. (2017). Alternative facts and fake news entering journalistic content production cycle. *Cosmopolitan Civil Societies: An Interdisciplinary Journal*, 9(2), 25-40.
- Holan, A. D. (2017, October 18). *The media's definition of fake news vs. Donald Trump's*. Retrieved from POLITIFACT: politifact.com/article/2017/oct/18/deciding-whats-fake-medias-definition-fake-news-vs/
- Islam, A. N., Laato, S., Talukder, S., & Sutinen, E. (2020). Misinformation sharing and social media fatigue during COVID-19: An affordance and cognitive load perspective. *Technological Forecasting and Social Change*, 159. doi:10.1016/j.techfore.2020.120201
- Jamil, S., & Appiah-Adjei, G. (2019). Journalism in the era of mobile technology: The changing pattern of news production and the thriving culture of fake news in Pakistan and Ghana. *World of Media Journal of Russian Media and Journalism Studies*, 1(3), 42-64.
- Jansen, B. J., Zhang, M., Sobel, K., & Chowdury, A. (2009). Twitter Power: Tweets as Electronic Word of Mouth. *Journal of the American Society for Information Science and Technology*, 60(11), 2169-2188.

- JinShena, Duan, H., Zhang, B., Wang, J., S.Ji, J., Wang, J., . . . Shi, X. (2020). Prevention and control of COVID-19 in public transportation: Experience from China. *Environmental Pollution*, 266(2), 115291.
- Kang, H., Bae, K., Zhang, S., & Sundar, S. S. (2011). Source cues in online news: Is the proximate source more powerful than distal sources? *Journalism & Mass Communication Quarterly*, 88(4), 719-736.
- Kanoh, H. (2018). Why do people believe in fake news over the Internet? An understanding from the perspective of existence of the habit of eating and drinking. *Procedia Computer*, 126, 1704-1709.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and. *Business horizons*, 53(1), 59—68.
- Kasprak, A. (2020, March 11). *No, Holding Your Breath is Not a 'Simple Self-Check' for Coronavirus*. Retrieved from Snopes: <https://www.snopes.com/fact-check/taiwan-experts-self-check/?collection-id=241238>
- Kasprak, A. (2020, April 1). *The Origins and Scientific Failings of the COVID-19 'Bioweapon' Conspiracy Theory*. Retrieved from Snopes: <https://www.snopes.com/news/2020/04/01/covid-19-bioweapon/?collection-id=238721>
- Kemp, S. (2020). *Digital 2020*. Accra: Hootsuite. Retrieved from <https://datareportal.com/reports/digital-2020-ghana#:~:text=There%20were%206.00%20million%20social,at%2020%25%20in%20January%202020>
- Khan, M. L., & Idris, I. K. (2019). Recognise misinformation and verify before sharing: a reasoned action and information literacy perspective. *Behaviour & Information*, 1-19. doi:10.1080/0144929X.2019.1578828
- Kim, H. K., Ahn, J., Atkinson, L., & Kahlor, L. A. (2020). Effects of COVID-19 Misinformation on Information Seeking, Avoidance, and Processing: A Multicountry Comparative Study. *Science Communication*, 42(5), 586–615.
- Klein, D., & Wueller, J. (2017). Fake news: A legal perspective. *Journal of Internet Law*. *Journal of Internet Law*.
- Kolluri, N. L., & Murthy, D. (2021). CoVerifi: A COVID-19 news verification system. *Online Social Networks and Media*, 22. doi:10.1016/j.osnem.2021.100123
- Kothari, C. (2004). *Research and Methodology Methods and Techniques*. New Age International.
- Krause, N. M., Freiling, I., Beets, B., & Brossard, D. (2020). Fact-checking as risk communication: the multi-layered risk of misinformation in times of COVID-19. *Journal of Risk Research*, 23(7-8), 1052-1059.

- Kumar, V., Ramkumar, Pruthvishree, B., Pande, T., Sinha, D., Singh, B., . . . Malik, Y. S. (2020). SARS-CoV-2 (COVID-19): Zoonotic Origin and Susceptibility of Domestic and Wild Animals. *Journal of Pure and Applied Microbiology*, 14(1), 741-747.
- Lasorsa, D. L., Lewis, S. C., & Holton, A. E. (2012). Normalizing Twitter: Journalism practice in an emerging communication space. *Journalism studies*, 13(1), 19-36.
- Lazer, D. M., Baum, M. A., Benkler, Y., Berinsky, A. J., Greenhill, K. M., Menczer, F., . . . Duncan. (2018). The science of fake news. *Science*, 359(6380), 1094-1096.
- Lilleker, D. (2017). Evidence to the Culture, Media and Sport Committee 'Fake news' inquiry presented by the Faculty for Media & Communication. Bournemouth University. Retrieved from <http://eprints.bournemouth.ac.uk/28610/3/Evidence%20Submission%20-%20Fake%20News%20FINAL.pdf>
- Linden, S. v., Roozenbeek, J., & Compton, J. (2020). Inoculating against fake news about COVID-19. *Frontiers in psychology*, 11(566790).
- Ljepav, N., Orr, R. R., Locke, S., & Ross, C. (2013). Personality and social characteristics of Facebook non-users and frequent users. *Computers in Human Behavior*, 29(4), 1602-1607.
- Lohiniva, A.-L., Nurzhynsk, A., Hudi, A.-h., Anim, B., & Aboagye, D. C. (2022). Infodemic Management Using Digital Information and Knowledge Cocreation to Address COVID-19 Vaccine Hesitancy: Case Study From Ghana. *JMIR Infodemiology*, 2(2). doi:10.2196/37134v
- Lystad, M. H. (1960). Traditional Values of Ghanaian Children. *American Anthropologist*, 62(3), 454-464.
- MacGuill, D. (2020, January 31). *Was This 'Health Bulletin' an Accurate Coronavirus Warning?* Retrieved from Snopes: <https://www.snopes.com/fact-check/nwllab-moh-bulletin-coronavirus/?collection-id=241238>
- Marshall, M. N. (1996). Sampling for qualitative research. *Family Practice*, 13(6), 522-525.
- Marx, K., & Engels, F. (1953). Die deutsche Ideologie. In D. h. Materialismus (Ed.), *Siegfried*. Stuttgart Landshut.
- Mead, G. H. (1934). *Mind, Self, and Society: From the Standpoint of a Social Behaviorist*. Chicago: University of Chicago Press.
- Mellon, J., & Prosser, C. (2017). Twitter and Facebook are not representative of the general population: Political attitudes and demographics of British social media users. *Research and Politics*, 4(3), 1-9.
- Mian, A., & Khan, S. (2020). Coronavirus: the spread of misinformation. *BMC medicine*, 18(1), 1-2.
- Mohajan, H. (2018). Qualitative Research Methodology in Social Sciences and Related Subjects. *Journal of Economic Development, Environment and People*, 7(1), 23-48.

- Molina, M. D., Sundar, S. S., Le, T., & Lee, D. (2021). "Fake News" Is Not Simply False Information: A Concept Explication and Taxonomy of Online Content. *American Behavioral Scientist*, 65(2), 180–212.
- Morens, D. M., Breman, J. G., Calisher, C. H., Doherty, P. C., Hahn, B. H., Keusch, G. T., . . . Taubenberger, J. K. (2020). The Origin of COVID-19 and Why It Matters. *The American Journal of Tropical Medicine and Hygiene*, 103(3), 955-959.
- Morens, D. M., Folkers, G. K., & Fauci, A. S. (2009). What Is a Pandemic? *The Journal of Infectious Diseases*, 200(7), 1018-1021.
- Moscadelli, A., Albora, G., Biamonte, M. A., Giorgetti, D., Innocenzio, M., Paoli, S., . . . Bonaccorsi, G. (2020). Fake News and Covid-19 in Italy: Results of a Quantitative Observational Study. *International Journal of Environmental Research and Public Health*, 17(16), 5850.
- Mwandoba, H. (2005). Language and meaning: Data collection in qualitative research. *Journal of Counselling Psychology*, 52(2), 137–145.
- Naeem, S. B., & Bhatti, R. (2021). The Covid-19 'infodemic': a new front for information professionals. *Health Information & Libraries Journal*, 37(3), 233-239.
- Naeem, S. B., Bhatti, R., & Khan, A. (2021). An exploration of how fake news is taking over social media and putting public health at risk. *Health Information & Libraries Journal*, 38(2), 143–149.
- Nee, R. C. (2019). Youthquakes in a Post-Truth Era: Exploring Social Media News Use and Information Verification Actions Among Global Teens and Young Adults. *Journalism & Mass Communication Educator*, 74(2), 171–184.
- Neudert, L.-M., Kollanyi, B., & Howard, P. N. (2017). *Junk News and Bots during the German Parliamentary Election: What are German Voters Sharing over Twitter?* COMPROP DATA MEMO. Retrieved from https://ora.ox.ac.uk/objects/uuid:33f7d85c-a25e-4796-aebf-a0e601fc84c1/download_file?file_format=pdf&safe_filename=ComProp_GermanElections_Sep2017v5.pdf&type_of_work=Report
- Niburski, K., & Niburski, O. (2020). Impact of Trump's Promotion of Unproven COVID-19 Treatments and Subsequent Internet Trends: Observational Study. *Journal of Medical Internet Research*, 22(11). doi:10.2196/20044
- O'Connor, C., & Murphy, M. (2020). Going viral: doctors must tackle fake news in the covid-19 pandemic. *BMJ*, 369.
- Ognyaova, K., Lazer, D., Robertson, R. E., & Wilson, C. (2020). Misinformation in action: Fake news exposure is linked to lower trust in media, higher trust in government when your side is in power. *Harvard Kennedy School Misinformation Review*, 1(4). doi:10.37016/mr-2020-024
- Ollman, B. (1972). Toward Class Consciousness Next Time: Marx and the Working Class. *Politics and Society*, 3(1), 1-24.

- Orb, A., Eisenhauer, L., & Wynaden, D. (2000). Ethics in Qualitative Research. *JOURNAL OF NURSING SCHOLARSHIP*, 33(1), 93-96.
- Osuagwu, U. L., Miner, C. A., Bhattarai, D., Mashige, K. P., Oloruntoba, R., Abu, E. K., . . . Don, D. (2020). Misinformation About COVID-19 in Sub-Saharan Africa: Evidence from a Cross-Sectional Survey. *Health Security*, 19(1). doi:10.1089/HS.2020.020244
- Ovenseri-Ogbomo, G., Ishaya, T., Osuagwu, U. L., Abu, E. K., Nwaeze, O., Oloruntoba, R., . . . Agho, K. (2020). Factors associated with the myths associated with the myth about 5G network during COVID-19 pandemic in sub-Saharan Africa. *Journal of Global Health Reports*, 4.
- Owusuwaa, B. (2016, August). <https://www.ghanaweb.com/GhanaHomePage/NewsArchive/Video-GBC-falls-for-fake-Thabo-Mbeki-death-report-461952>). Video: GBC falls for fake Thabo Mbeki death report. Retrieved from GhanaWeb: 11
- Oyeyemi, S. O., Gabarron, E., & Wynn, R. (2014). Ebola, Twitter, and misinformation: a dangerous. *BMJ*. doi:10.1136/bmj.g6178
- Palma, B. (2020, February 17). *Did Chinese Doctors Confirm African People Are Genetically Resistant to Coronavirus?* Retrieved from Snopes: <https://www.snopes.com/fact-check/coronavirus-cameroonian-student/?collection-id=238721>
- Parsons, T. (1937). *The Structure of Social Action*. New York: The Free Press.
- Pathak, V., Jena, B., & Kalra, S. (2013). Qualitative research. *Perspectives in Clinical Research*, 4(3), 192.
- Pennycook, G., & Rand, D. G. (2021). The Psychology of Fake News. *Trends in Cognitive Sciences*, 25(5), 388-402.
- 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.
- Pradhan, D., Biswasroy, P., Naik, P. K., Ghosh, G., & Ratha, G. (2020). A Review of Current Interventions for COVID-19 Prevention. *Archives of Medical Research*, 51(5), 363–374.
- Press, A. (2020, March 27). *In Iran, False Belief a Poison Fights Virus Kills Hundreds*. Retrieved from VOA: https://www.voanews.com/a/science-health_coronavirus-outbreak_iran-false-belief-poison-fights-virus-kills-hundreds/6186492.html
- Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European Journal of Education Studies*, 3(9), 369-387.
- Rapp, D. N., & Salovich, N. A. (2018). Can't We Just Disregard Fake News? The Consequences of Exposure to Inaccurate Information. *Policy Insights from the Behavioral and Brain Sciences*, 5(2), 232-239.
- Romer, D., & Jamieson, K. H. (2020). Conspiracy theories as barriers to controlling the spread of COVID-19 in the U.S. *Social Science & Medicine*, 263, 113356.

- Rosenberg, H., Syed, S., & Rezaie, S. (2020). The twitter pandemic: The critical role of twitter in the dissemination of medical information. *Canadian Journal of Emergency Medicine*, 1-7.
- Sahoo, S., Padhy, S. K., Ipsita, J., Mehra, A., & Grover, S. (2020). Demystifying the myths about COVID-19 infection and its societal importance. *Asian Journal of Psychiatry*, 54, 102244.
- Sanders, L. (2020, May 26). *The difference between what Republicans and Democrats believe to be true about COVID-19*. Retrieved from YouGov: <https://today.yougov.com/topics/politics/articles-reports/2020/05/26/republicans-democrats-misinformation>
- Sasu, D. D. (2021, May 12). *Most used social media platforms in Ghana as of the third quarter of 2020*. Retrieved from Statista: <https://www.statista.com/statistics/1171534/leading-social-media-platforms-ghana/>
- Shane, S. (2017, September 7). *The Fake Americans Russia Created to Influence the Election*. Retrieved from The New York Times: <https://www.nytimes.com/2017/09/07/us/politics/russia-facebook-twitter-election.html?mtrref=www.google.com.au>
- Shereen, M. A., Khan, S., Kazmi, A., Bashir, N., & Siddique, R. (2020). COVID-19 infection: Origin, transmission, and characteristics of human coronaviruses. *Journal of Advanced Research*, 24, 91-98.
- Shu, K., Sliva, A., Wang, S., Tang, J., & Liu, H. (2017). Fake News Detection on Social Media: A Data Mining Perspective. *ACM SIGKDD explorations newsletter*, 19(1), 22-36.
- Singer, J. B. (2005). The political j-blogger: 'Normalizing' a new media form to fit old norms and practices. *Journalism*, 6(2), 173-198.
- Sommarivaa, S., Vamosa, C., Mantzarlisb, A., Đaoa, L. U.-L., & Tyson, D. M. (2018). Spreading the (Fake) News: Exploring Health Messages on Social Media and the Implications for Health Professionals Using a Case Study. *American Journal of Health Education*, 49(4), 246-255.
- Statista. (2022, August 2). *Total number of active social media users in Ghana from 2017 to 2022*. Retrieved from Statista: <https://www.statista.com/statistics/1171445/number-of-social-media-users-ghana/#:~:text=As%20of%20January%202022%2C%20Ghana,of%208.6%20million%20Facebook%20users.>
- Starks, H. (2007). Choose Your Method: A Comparison of Phenomenology, Discourse Analysis, and Grounded Theory. *Qualitative Health Research*, 17(10), 1372-1380.
- Stein, R. A., Ometa, O., Shetty, S. P., Katz, A., Popitui, M. I., & Brotherton, R. (2020). Conspiracy theories in the era of COVID-19: A tale of two pandemics. *International Journal of Clinical Practice*, 75(2).

- Sun, Y. (2022). Verification Upon Exposure to COVID-19 Misinformation: Predictors, Outcomes, and the Mediating Role of Verification. *Science Communication*, 44(3), 261–291.
- Sveningsson, M. (2015). “It’s only a pastime, really”: Young people’s experiences of social media as a source of news about public affairs. *Social Media+ Society*, 1(2), 1-11.
- Tabong, P. T.-N., & Segtub2, M. (2021). Misconceptions, Misinformation and Politics of COVID-19 on Social Media: A Multi-Level Analysis in Ghana. *Frontiers in Communication*, 6(613794). doi:613794
- Tandoc, E. C. (2019). The facts of fake news: A research review. *Sociology Compass*, 13(9), e12724.
- Tandoc, E. C., Ling, R., Westlund, O., Duffy, A., Goh, D., & Wei, L. Z. (2018). Audiences’ acts of authentication in the age of fake news: A conceptual framework. *New media & Society*, 20(8), 2745–2763.
- Tandoc, E. C., Thomas, R. J., & Bishop, L. (2021). What Is (Fake) News? Analyzing News Values (and More) in Fake Stories. *Media and Communication* (, 9(1), 110–119.
- Tandoc, J. E., Lim, Z. W., & Ling, R. (2018). Defining “Fake News”: A typology of scholarly definitions. *Digital Journalism*, 6(2), 137-153.
- Thorne, S. (2000). Data analysis in qualitative research. *Evidence-based nursing*, 3(3), 68-70.
- Tong, C., Gill, H., Li, J., Valenzuela, S., & Rojas, H. (2020). “Fake News Is Anything They Say!” – Conceptualization and Weaponization of Fake News among the American Public. *Mass Communication and Society*. doi:10.1080/15205436.2020.1789661
- Tsfati, Y., Boomgaarden, H. G., Strömbäck, J., Vliegenthart, R., Damstra, A., & Lindgren, E. (2020). Causes and consequences of mainstream media dissemination of fake news: literature review and synthesis. *Annals of the International Communication Association*, 44(2), 157-173.
- Uscinski, J. E., Enders, A. M., Klofstad, c., Seelig, M., Funhion, J., Everett, C., Murthi, M. (2020, April 28). Why do people believe COVID-19 conspiracy theories? *Harvard Kennedy School Misinformation Review*, 1(3). Retrieved from <https://misinforeview.hks.harvard.edu/article/why-do-people-believe-covid-19-conspiracy-theories/>
- Vallone, R. P., Ross, L., & Lepper, M. R. (1985). The Hostile Media Phenomenon: Biased Perception and Perceptions of Media Bias in Coverage of the Beirut Massacre. *Journal of personality and social psychology*, 577-585.
- Verstraete, M., Bambauer, D. E., & Bambauer, J. R. (2017). Identifying and countering fake news. Arizona Legal Studies. Retrieved from <https://www-media.floridabar.org/uploads/2017/09/Fake-News-Identifying-and-Countering.pdf>
- Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146–1151.

- Waldrop, T., Alsup, D., & McLaughlin, E. C. (2020, March 25). *Fearing coronavirus, Arizona man dies after taking a form of chloroquine used to treat aquariums*. Retrieved from CNN: <https://edition.cnn.com/2020/03/23/health/arizona-coronavirus-chloroquine-death/index.html>
- Wang, Y., McKee, M., Torbica, A., & Stuckler, D. (2019). Systematic Literature Review on the Spread of Health-related Misinformation on Social Media. *Social Science & Medicine*, 240(112552), 1-12.
- Wenzel, A. (2019). To Verify or to Disengage: Coping with “Fake News” and Ambiguity. *International Journal of Communication*, 13, 1977–1995.
- WHO. (2020, February 15). *Munich Security Conference*. Retrieved from World Health Organization: <https://www.who.int/director-general/speeches/detail/munich-security-conference>
- WHO. (2021, October 1). *Advice for the public: Coronavirus disease (COVID-19)*. Retrieved from World Health Organization: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public>
- Wojcik, S., Messing, S., Smith, A., Rainie, L., & Hitlin, P. (2018). *Bots in the Twittersphere*. Pew Research Center. Retrieved from https://assets.pewresearch.org/wp-content/uploads/sites/14/2018/04/01120759/PI_2018.04.09_Twitter-Bots_FINAL.pdf
- Wong, A., Ho, S., Olusanya, O., Antonini, M. V., & Lyness, D. (2021). The use of social media and online communications in times of pandemic COVID-19. *Journal of the Intensive Care Society*, 22(3), 255–260.
- Worldometer. (2021, March 9). *Corona Virus*. Retrieved from Worldometer: <https://www.worldometers.info/coronavirus/>
- Xia, J., Wu, T., & Zhou, L. (2021). Sharing of Verified Information about COVID-19 on Social Network Sites: A Social Exchange Theory Perspective. *International Journal of environmental Research and Public Health*, 18(3), 1260.
- Zimbabwe, U. N. (2021, January 18). *Why verifying information is critical in the fight against COVID-19*. Retrieved from United Nations Zimbabwe: <https://zimbabwe.un.org/en/111005-why-verifying-information-critical-fight-against-covid-19>
- Zúñiga, H. G., Jung, N., & Valenzuela, S. (2012). Social Media Use for News and Individuals' Social Capital, Civic Engagement and Political Participation. *Journal of Computer-Mediated Communication*, 17(3), 319–336.

APPENDIX:

APPENDIX A: INTERVIEW GUIDE:

Before starting an interview:

1. Inform potential participants of the purpose of the interview (Academic) and seek their consent to participate in the interview
2. Inform participants of various measures you have put in place to safe guard their identity and to prevent harm: Anonymity, right to discontinue the interview at any time without fear, among others.
3. Seek the consent of participants to record them.
4. Determine if the person is a social media user or not. This will allow you keep the number of social media users and non-users balanced (10, 10)

Section A: Demographic Data

1. Name
2. Age
3. Relationship Status
4. Educational Status
5. Religious Affiliation.
6. Economic status (low, middle, high)
7. Any other thing about you?

Section B: Sources of Covid-19 Related News:

1. Where/how do you obtain information about Covid 19?
2. How do you verify information you receive about Covid-19?
3. Have you ever believed that a Covid 19 related information you received is false? If yes (what was the information and how did you make the determination of its truth value?)
4. What are your perceptions about Covid-19 related news obtained from social media?
5. What are your perceptions of Covid-19 related news obtained from traditional media sources (radio, television, newspapers)?

Section C: Social Relations, Covid-19 Information, and Fake News:

1. Which Covid-19 information have you received from family and friends?
2. Do you think family and friends who share Covid-19 information with you are looking out for your best interest? (If yes, why? If no, why?)
3. How do you think your relationship with a news source affects your efforts to verify Covid-19 information you receive? (Is it a formal relationship in terms of radio and television, or an informal one in terms of family and friends?)
4. How do you perceive information you receive from family and friends? (Informed opinions, fake news, unverified, conspiracy theory, etc).
5. How has your interactions with people (friends, family, religious leaders, and political leaders) shaped your understanding of the Covid-19 virus?

Section D: Knowledge/Beliefs About Covid-19

1. What do you know about the Covid 19 pandemic? (Seek to find out what they know about:
 - a. the cause of virus
 - b. any reason for its existence (just a natural thing or orchestrated)
 - c. origin of the virus
 - d. what effective treatment mechanisms do you know? (Ask about the sources of information too).
2. Which home remedies do you know that can be effective against the Covid-19 virus?
3. What are your opinions about suggested home remedies for Covid 19?
4. What do you know about Covid-19 that the you believe most people do not know?

Section E: Responses to Covid 19:

1. Which information about Covid 19 has changed the way you perceive the virus and respond to it?
2. With regards to Covid, what is the influence of your religious leader/religion in how you relate to the virus?
3. What do you do once you receive any information about the Covid 19 virus/pandemic? (Do they spread it or just act on it or ignore it? Also ask about information from strangers vs family and friends).
4. What are your opinions on the suspension of social and religious gatherings? (Online church, fewer people at weddings etc)
5. **(For social media users):** Assuming you read on social media that Covid 19 does not exist, what will be your response to the news item?
6. **(For non-social media users):** Assuming you heard (radio or from a family member/friend) that Covid 19 does not exist, how will you respond to the information?

APPENDIX B: DEMOGRAPHIC INFORMATION OF PARTICIPANTS:

Type of Participant	Name	Age	Education	Religion
Social Media User	Yaw	23	Junior High School	Christian
	Veronica	26	Tertiary Education	Christian
	Modesta	24	Senior High School	Christian
	Emmanuel	28	Senior High School	Christian
	Stephen	35		Christian
	Rita	32	Senior High School	Christian
	Vincent	28	Tertiary Education	Christian
	Prince	25	Tertiary Education	Christian
	Phillipa	23	Tertiary Education	Christian
	Kojo	27	Senior High School	Christian

Non-Social Media Users	Serwaa	37	Senior High School	Christian
	Abena	28	Junior High School	Christian
	Ibrahim	57	No Formal Education	Muslim
	Cyntia	37	Senior High School	Christian
	Nana Yaw	24	Senior High School	Christian
	Abigail	31	Senior High School	Christian
	Maame Yaa	39	Junior High School	Christian
	Osei	42	Junior High School	Christian
	Charles	31	Senior High School	Christian
	Afa	45	Junior High School	Christian



APPENDIX C: ETHICAL CLEARANCE



UNIVERSITY OF GHANA
ETHICS COMMITTEE FOR THE HUMANITIES (ECH)
P. O. Box LG 74, Legon, Accra, Ghana

My Ref No. ... ECH 097/20-21 ...

February 24, 2021.

Derrick Mensah Degboe
Department of Sociology
University of Ghana
Legon

ETHICAL CLEARANCE
(ECH 097/20-21)

The protocol title below has been reviewed and approved by the ECH Committee.

TITLE OF PROTOCOL: FAKE NEWS AND PANDEMICS: EXAMINING RESPONSES TO COVID-19 AMONG GHANAIAN SOCIAL MEDIA USERS AND NON-USERS IN ACCRA.

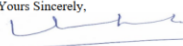
PRINCIPAL INVESTIGATOR: DERRICK MENSAH DEGBOE

Please note that the final review report must be submitted to the Committee at the completion of the study. Your research records may be audited at any time during or after the implementation. Any modification of this research project must be submitted to ECH for review and approval prior to implementation.

Please report all serious adverse events related to this study to ECH within seven (7) days verbally and in writing within fourteen (14) days.

This certificate is valid till February 23, 2022. You are to submit annual reports for continuing review.

Please accept my congratulations.

Yours Sincerely,


Professor C. Charles Mate-Kole
ECH Chair

Cc: Dr. Kodzovi Akpabli-Honu, Department of Sociology, UG
Dr. Rabi Asante, Department of Sociology, UG

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