



**'EXPLORING THE ROLE OF SOCIAL MEDIA WITHIN COVID-19
PREVENTION AND MIS/INFORMATION ON FACEBOOK: A CASE
STUDY OF THE SOUTH AFRICAN LEVEL 5 LOCKDOWN'**

By

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DECLARATION

I, Aadila Ahmad (215023795), hereby declare that the dissertation titled '*Exploring the role of social media within COVID-19 prevention and mis/information on Facebook: A case study of the South African level 5 lockdown*', except where otherwise stated is my own Master's work and this dissertation has not previously been submitted for a degree at this or any other university. I further declare that all the information derived from published and unpublished work of others has been acknowledged in the text and the list of references provided.

Signature

08 February 2022

Date

DEDICATION

This dissertation is dedicated to my parents who have always taught me that if you have an education you can conquer the world.

This research is also dedicated to all those who have lost loved ones to COVID-19 and especially to those who have worked in front lines to keep us safe during this pandemic.

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In the name of Allah (SWT), the merciful and compassionate.

The journey of writing a Master's dissertation is a long and arduous one, that could not have been done singlehandedly. There are a few people without whom, this journey would not have been a smooth one and I would like to extend my most heartfelt gratitude to the following people:

My sincerest appreciation and gratitude to my supervisor, Professor Eliza Govender, without whom this research study would not be possible. Her guidance, understanding, patience, support and advice has carried me through the various writing stages of this dissertation. It has been a pleasure working with you and I am grateful that I was granted this opportunity.

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ABSTRACT

The outbreak of COVID-19 has created a global health crisis with a deep impact on the way in which we communicate and confront public health emergencies. The inundated utilization of social media has unified the world in a global pandemic experience. Social media has become an integral part of our lives particularly during the COVID-19 public health emergency. While lockdown regulations, due to COVID-19 has limited human and physical interaction, social media has been at the forefront of accessible information yet at the same time a platform for increased misinformation and myths surrounding the impact and risks of the pandemic.

This study seeks to explore the role of social media discourses around COVID-19 prevention and misinformation during the first three weeks of the level 5 lockdown in South Africa. This study purposively selected 3 posts from the National Department of Health (NDoH) Facebook page between the 27th of March 2020 to the 18th of April 2020 that relate to COVID-19 prevention messaging and the way the NDoH has addressed the circulation of misinformation and fake news. The study uses a qualitative content analysis to analyse how the NDoH has utilized their Facebook page in disseminating COVID-19 prevention messaging, the common topics of discussion related to COVID-19 prevention and misinformation and fake news awareness and how the NDoH engaged in COVID-19 related messaging and prevention communication. The study adopts the three new categories of the uses and gratification theory (UGT); content, process, and social gratification (Stafford, Stafford and Schkade, 2004) to understand how the public engaged in COVID-19 related messaging on the National Department of Health's Facebook page.

Key findings of the study found that the NDoH, as a leading health institution in South Africa has utilized their Facebook page to introduce and encourage discussions around COVID-19 prevention messaging and misinformation and fake news awareness. The themes demonstrated the ways in which the NDoH Facebook was used to encourage discussions around the factors that influence COVID-19 prevention messaging, effects of the lockdown and COVID-19 mis/information, through the comments between the Facebook users. By reviewing the comments and the themes derived from them, it is evident that the NDoH, in initiating these discussions, has succeeded in utilizing their Facebook page to encourage discussions around COVID-19 prevention messaging and misinformation and fake news awareness. The common topics of discussion aligned with the rationale of the study that included; the influence of

COVID-19 preventative apparel and physical prevention methods on prevention messaging; the influence of traditional medicine, herbal remedies and religious interventions on prevention messaging and the influence of scientific interventions and western medicine on prevention messaging which formed the theme of the factors that influence COVID-19 prevention messaging, experiences and consequences of lockdown which formed the theme effects of lockdown; as well as, fake news, general and mis/information regarding COVID-19 and conspiracy theories which formed the theme COVID-19 mis/information. Using the likes and shares of the posts and comments indicated that NDoH Facebook did encourage audience engagement of the posts regarding prevention strategies and misinformation during the level 5 lockdown in South Africa.

Keywords: *COVID-19; Uses and Gratifications Theory; National Department of Health; prevention messaging, misinformation, fake news, South Africa, Facebook, social media.*

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ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
CDC	Centres for Disease Control and Prevention
CERC	Crisis and Emergency Risk Communication
COVID-19	The novel coronavirus SARS-CoV2
GO	Gratifications Obtained
GS	Gratifications Sought
IFRC	International Federation of Red Cross and Red Crescent Societies
IPTV	Internet Protocol television
MERS	Middle East respiratory syndrome
NICD	The National Centre for Infectious Diseases
NDoH	National Department of Health
QCA	Qualitative Content Analysis
RCCE	Risk Communication and Community Engagement
SABC	South African Broadcasting Corporation
SAPS	South African Police Services
SANDF	South African National Defence Force
SARS	Severe Acute Respiratory Syndrome
UGT	Uses and Gratifications Theory
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organisation

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CHAPTER ONE

INTRODUCTION

Background

The public health emergency, the novel coronavirus (COVID-19), recorded its first case in Wuhan, China on the 31st of December 2019, which thereafter spread to 24 countries outside of China and has now spread globally (Worldometer, 2020; South Africa COVID-19 Corona Tracker, 2020). The outbreak of COVID-19 has created a global health crisis with a deep impact on the way in which we perceive our world and our everyday lives.

Three months later this novel pandemic hit South Africa, with the first COVID-19 case recorded at the beginning of March 2020 (Gov.za, 2020). Ten days later, the President of South Africa, announced a national state of disaster, declaring immediate travel restraints and the closure of schools and institutions of higher learning (Disaster Management Act 57, 2002; The Presidency, 2020).

At the time of the national state disaster, there was a continuous display of personal hygiene, handwashing and physical distancing messages across various government mass media and social media platforms, such as the National Department of Health (NDoH) media channels (Kekana, 2020). Despite these initial prevention measures carried out by the government to curb the spread of the virus, stricter measures were required to be implemented in order to reduce the escalating number of cases within the country, which resulted in the initial 21 days national lockdown, which began on the 26th of March 2020 at midnight and was to be lifted on the 16th of April 2020 at midnight, with a risk adjusted strategy of 5 levels.

Lockdown and the use of social media in South Africa

The initial national lockdown was announced by the president on the 23rd of March 2020 which was set to begin on the 26th of March 2020 when South Africa had a total of 1000 positive COVID-19 cases (sacoronavirus.co.za, 2020). The lockdown in South Africa was made up of five levels that the country would pass depending on the transmission rate and the capacity of the health system to provide care for those who have infected (SA coronavirus, 2020). Lockdown level 5 was set to begin on the 27th of March 2020 and last for three weeks. This lockdown included severe restriction on travel and movement that would be enforced by the South African National Defence Force (SANDF) as well as the South African Police Services

(SAPS) (sacoronavirus.co.za, 2020). This preventative measure as well as the use of a three-ply masks in public, social distancing of at least 1.5 metres, washing of the hands for at least 20 seconds and the use of hand sanitizer, were implemented to avoid a huge catastrophe among the population of South Africa. Level 5 lockdown exemptions included people who were deemed as essential and necessary for effective response to the pandemic such as health providers, food production and others.

The strict level 5 lockdown restrictions limited movement and increased physical distancing during this time and thereby escalated the use of social media platforms for engagement and communication. The continuous and digitalised connectedness that was established during this lockdown period, aided many families, schools and businesses (SAcoronavirus, 2020). While lockdown regulations limited human and physical interaction, social media such as Twitter and Facebook, proved to be the most viable and accessible form of communication yet at the same time became a tool for increased misinformation and myths surrounding the impact and risks of infection (Bosch, 2020). However, when social media is utilized effectively it can be an important platform for health and COVID-19 communication and the sharing prevention messages (Bosch, 2020).

The popularity of social media has altered the practice of communication globally and within South Africa, its significance within the area of information dissemination is particularly evident during public health emergencies (Chou, Hunt and Beckjord, 2009). During public health emergencies the reliance on social media as a source of information is even more pronounced. Experts focusing on emergency preparedness and management need to be aware of how to incorporate these powerful communication tools into their information dissemination plans (Veil, Buehner and Palenchar, 2011). With the rise of the internet and social media there has been another phenomenon that takes the frontline in recent public health emergencies, the 'infodemic' or rapid spread of misinformation and fake news.

It is against this background that this study seeks to explore the role of social media in health promotion during the COVID-19 infodemic for the first three weeks of the level 5 lockdown in South Africa. This study uses a content analysis to analyse the comments of three purposively selected posts that were posted on the Department of Health's (NDoH) social media platform Facebook, during the first three weeks of the level 5 lockdown in order to make sense of how the public responded to the effects and impact of COVID-19 as well as the

dissemination of prevention messaging and the spread of misinformation and fake news, through social media which was arguably their main communication platform during that period.

Problem Statement

In an effort to curb the rapid increase of COVID-19 cases within South Africa, the government decided to implement a nationwide lockdown. This lockdown comprised of 5 stages which the country would complete based on the rate of infections over a period of time. For the purpose of this research study, the role of social media in COVID-19 related prevention and misinformation discourse, during level 5 of the nationwide lockdown will be studied, due to its stricter nature and limited physical interactions, which offered a great platform for social media interaction among the public, such as Facebook. In South Africa, the number of Facebook users for March 2020 was 21.2 million and April 2020 was 21.3 million compared to March and April 2019, where the number of Facebook users was 16 million and 16.4 million respectively (Napoleoncat.com, 2021).. This significant increase in the number of Facebook users during the level 5 lockdown in South Africa, shows that there was an increase in the usage of Facebook during this time, in comparison to social media platforms like Instagram in March and April 2020 had only 4.2 million and 4.3 million respectively (Napoleoncat.com, 2021).

As a major technological innovation of recent years, social media applications have reshaped the nature of digital information sharing and networking. As part of this, they have come to function as spaces where both officials and citizens seek to interpret emergency situations and intervene accordingly (Marcias, Hilyard, and Freimuth, 2009; Neubaum, Rosner, Rosenthal van der Putten and Kramer., 2014; Palen, Vieweg and Anderson, 2011). However, the use of internet also creates an opportunity for the dissemination of fake news and misinformation that fuels the COVID-19 infodemic. The term 'infodemic' was first mentioned by David Rothkopf during the SARS epidemic in 2003 where he described it as a "facts mixed with fears, speculation and rumour that is amplified and relayed globally through modern information technologies" (Rothkopf, 2003: p.1). Health researcher, Gunther Eysenbach introduced the field of 'infodiemology' that is used to describe the study of the determinants and distribution of health information and misinformation (Eysenbach, 2002). During COVID-19, the World Health Organisation (2020) describes an infodemic is the spread of unnecessary amount of

information about an issue, which makes it difficult to identify a solution. An infodemic disseminates misinformation, disinformation, and rumours during a health emergency.

The pandemic coerced people to face the reality of what would be the new normal with those around them as well as those activities that were once safe but now risks that could bring harm to strangers, family, and friends. A new norm was created where physical intimacy was reached through the use of digital means such as texting, video-calling, and the use of various online platforms such as social media platforms (Nguyen, Gruber, Fuchs, Marler, Hunsaker & Hargittai, 2020).

Social media has the potential to either increase the level of awareness and alertness regarding the emerging health emergency or reduce the level of uncertainty to avoid the catastrophic results of an inappropriate reaction to the emerging health emergency (Smith and McCloskey, 1998). While social media platforms are largely used in South Africa as a dominant communication platform for many people engaging in different topics. This study seeks to explore Facebook user responses to the images, posted by the National Department of Health on their Facebook page and how they were engaging in COVID-19 related communication and prevention messaging. The study further seeks to understand the elements of misinformation during the first three weeks of level 5 lockdown period. The study will use content analysis to analyse three purposively selected posts from the National Department of Health's Facebook page, dated 7th, 10th, and 18th April 2020. These posts have been purposively selected within the defined time period of the first 21 day hard lockdown as they contain information regarding misinformation/ fake news, the importance of using masks in public and an informative post regarding the difference between self-isolation and quarantine. The Uses and Gratifications Theory will be used to further understand the reasons supporting audience engagement with COVID-19 related messaging in terms of prevention and misinformation using the categories of gratification.

Research Aims, Objectives and Questions

Aims and Objectives

This study aims to understand the role of social media specifically Facebook in health promotion within a COVID-19 context, specifically during level 5 lockdown.

The research objectives of this study include:

- To analyse the ways the NDoH's Facebook page has been utilised for discussions around COVID-19 prevention messaging and misinformation and fake news awareness in South Africa
- To explore the common topics of discussion based on audience reception of the selected NDoH posts.
- To examine the ways in which the uses and gratification theory was applied by followers on the NDoH's Facebook page during level 5 lockdown in South Africa.

Research Questions

- In what ways has NDoH Facebook page been utilised for discussions around COVID-19 prevention messaging and misinformation and fake news awareness in South Africa?
- What were common topics of discussion based on audience reception of the selected NDoH posts?
- In what ways was the Uses and Gratifications Theory applied by the NDoH Facebook page followers during level 5 lockdown in South Africa?

Research methods

Qualitative Research Approach

A qualitative research approach refers to “a systematic subjective approach used to describe life experiences and give them meaning” (du Plooy-Cilliers et al., 2014). The aim is to gain insight and to explore the depth, richness, and complexity of a phenomenon (Denzin, Lincoln, MacLure, Otterstad, Torrance, Cannella, Koro-Ljungberg, & McTier, 2017). As a highly subjective research discipline, qualitative research has been designed to gain an understanding of feelings, impressions, and viewpoints (Gounder, 2012). It is also an approach used to explore and understand the meaning that individuals or groups of people ascribe to a social or human problem (Gounder, 2012). This study uses a qualitative research approach as it aims to uncover the role of social media in health promotion during a public health emergency, which makes use of individual’s use of social media and the content they interact with. The researcher aims to explore the various topics discussed on the National Department of Health’s Facebook social media pages and the preventative messages conveyed and how they make sense of these prevention messages.

Research Design

According to Kerlinger (1973), “a research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions.” As a research design, exploratory research can be seen as research that is used to explore a new area of knowledge which is not clearly defined, it is therefore, conducted to have a better interpretation of the existing knowledge (Pandey and Pandey, 2015). It aims to examine the nature of a new phenomenon and situations related to it. This study uses an exploratory research design to explore the roles of social media in health promotion during COVID-19 in South Africa. More specifically it aims to analyse in what ways the current media platforms are used around COVID-19, to explore the topics under discussion during level 5 lockdown and to examine the preventative messages being conveyed on the National Department of Health (NDoH) Facebook social media page.

Data Collection and Data Analysis

Data Collection and sampling

The sample for this study will be informed by three purposively selected posts on Facebook page during the first three weeks of level 5 lockdown . Data collection methods include purposively collating COVID-19 related posts on Facebook on the National Department of Health South Africa (NDoH) social media page, on the 7th, 10th and 18th of April 2020. These posts will be in the form of images informing prevention messaging and misinformation.

Data analysis: Qualitative Content Analysis

This research study will make use of content analysis as a data analysis tool. Content analysis can be seen as “any technique used to make inferences by systematically and objectively identifying special characteristics of messages” (Holsti, 1968). Content analysis enables the researcher to arrange the text in smaller content-related categories, as it is assumed that when categorised into the same categories, words, and phrases share the same meaning (Cavanagh, 1997). There are two types of content analysis: qualitative content analysis and quantitative content analysis. This study will make use of qualitative content analysis. Qualitative content analysis concentrates on comprehending content (White and Marsh, 2006). Qualitative content analysis aims to find patterns in how concepts are communicated, understanding the intentions of individuals or groups, revealing differences in communication within different contexts and analysing the consequences of communication content which can be made up of information

flow or audience responses (Krippendorff, 2018). Qualitative content analysis can be further divided into two types: conceptual and relational content analysis. This research study will make use of conceptual content analysis, which is conducted to establish the existence and frequency of concepts within a text, which can either be explicit or implicit terms or concepts (Lou, 2020).

Qualitative content analysis makes use of steps to analyse data collected. These steps include defining the research problem, selecting the content you will analyse, defining the unit of analysis or analytical categories, developing a set of rules for coding, coding the text according to the rules and finally, analysing the results and drawing conclusions (Lou, 2020). These steps will assist the researcher to collect data that is of a rich nature and will allow the researcher to engage in data analysis that is knowledgeable and insightful.

Definition of research problem:

COVID-19 has limited the physical interaction and contact and has escalated the use of virtual, online interaction, in the form of social media platforms. This study uses conceptual content analysis to explore the reasons supporting public engagement of COVID-19 prevention messaging and misinformation that is posted on the National Department of Health (NDoH) Facebook page, between the 27th of March 2020 and the 18th of April 2020.

Media and Sample selection:

The form of media chosen to support this study of social media and more specifically Facebook. This social media platform was chosen due it being the most utilized social media platform, in South Africa, after WhatsApp (Statista, 2022). Facebook is also a platform used for a greater degree of user engagement (Acumen, 2020). The sample consists of three purposively selected posts found on the NDoH Facebook page. The sample timeline is a period of three weeks from the 27th of March 2020 till the 18th of April 2020. This timeline was selected, as it was the beginning of the National level 5 lockdown in South Africa, which subsequently limited physical interaction and encourages the use of virtual or social media platforms. The three posts chosen contain misinformation or fake news messaging as well as prevention messaging, in terms of the use of mask in public and the difference of self-isolation and quarantine.

Structure of Dissertation

Chapter Two: Literature Review

Chapter two reviews literature based on using media platforms as a medium to communicate health messages, particularly under the current health crisis brought on by COVID-19. The review will include research publications, books and websites that further enhance the understanding of social media use for health promotion messages. The review will also explore the role of social media in COVID-19 mis/information discourses on Facebook by highlighting the discourses around the use of social media in health communication as well as the communication approaches used by both national and international health institutes, such as Risk Communication and Community Engagement (RCCE) and Crisis and Emergency Risk Communication (CERC) in order to promote health-related messages and combat misinformation, where due to the rapid dissemination of information, fake news is spread faster than the attempts to discourage it.

Chapter Three: Theoretical Framework

Chapter three discusses the various elements of The Uses and Gratifications Theory (UGT) (Katz, Blumler & Gurevitch, 1974), which will be used to justify this research dissertation theoretically. The theory will be discussed in detail, firstly by outlining the brief history, the assumptions of the theory, the explanation of UGT and its use for the internet and social media. The chapter further discusses UGT and its position in health communication and an overview of its criticisms and shortcomings. The chapter concluded with a discussion on the relevance of the UGT to this research study.

Chapter Four: Methodology

Chapter four presents the steps that the researcher undertook in order to obtain the philosophical position (Interpretivism), research approach (qualitative research approach), and the research design (exploratory research design) of this research study as well as the data collection and analysis methods (Qualitative Content Analysis) will also be highlighted.

Chapter Five: Data Presentation

Chapter five focuses on data presentation of the collected data. Qualitative Content Analysis was used to analyse all written text in the form of comments under the three posts posted by NDoH on their Facebook page on COVID-19 prevention messaging and fake news and

misinformation. A coding sheet was created to extract categories and themes from the coding process. Similar themes and categories were identified and grouped together to give meaning and understanding to the research project. Chapter five also discusses research questions one and two based on the findings of data collected.

Chapter Six: Analysis and Findings

Chapter six presents the analysis and findings while answering research question three by using the Uses and Gratifications Theory (UGT) in order to delve into the analysis on how social media was used as a platform for health communication during the COVID-19 national lockdown in South Africa.

Chapter Seven: Conclusion

This chapter highlighted the role of social media during a public health emergency and a pandemic, specifically during COVID-19. The chapter provided an insight into the various reasons as to why social media has proven to be an effective platform in disseminating health information, prevention strategies and misinformation and fake news awareness.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The COVID-19 pandemic outbreak rapidly spread globally within days due to the fact that we now live in a global village whereby the dissemination of information across geographical borders is an everyday reality made possible by the advances in technology. These advances in media is another product of progress in technology, further, connecting people across the globe bridging time and space. As a result, further cementing the idea of living in a global village. While a number of ways and means have been developed by media to influence and control disease outcomes, media types have had both positive and negative effects due to their enormity and variety, these include traditional media channels (newspapers, television and radio) as well as new media channels (internet and social media). Social networks are dependent on the internet and may increase perceived social support and interconnectivity among individuals (Wangberg, Andreassen, Prokosch, Santana, Sorensen and Chronaki, 2008; Idriss, Kvedar, Watson, 2009). The use of social media platforms, like Facebook, Twitter, Instagram and WhatsApp, have a relief in the field of health communication, and disaster and global crisis communication by allowing the rapid dissemination of health information and preventative measures as well as allowing people to keep in touch and check up on loved ones during pandemics that limit social interaction like the COVID-19 pandemic. The sharing of information from both national and international health institutions through social media has made credible and verified information easily accessible to those who rely on social media as their primary information source, for example the National Department of Health's (NDoH) Facebook page in South Africa contains readily available COVID-19 information which include day to day statistics, preventative measures, general COVID-19 information and more recently vaccination information.

The following chapter reviews literature based on using media platforms as a medium to communicate health messages, particularly under the current health crisis brought on by COVID-19. The review will include research publications, books and websites that further enhance the understanding of social media use for health promotion messages. The review will also explore the role of social media in COVID-19 mis/information discourses on Facebook by highlighting the discourses around the use of social media in health communication as well as

the communication approaches used by both national and international health institutes, such as Risk Communication and Community Engagement (RCCE) and Crisis and Emergency Risk Communication (CERC) in order to promote health-related messages and combat misinformation, where due to the rapid dissemination of information, fake news is spread faster than the attempts to discourage it.

COVID-19 landscape nationally and globally

When a national crisis occurs, communication with the public is of utmost importance. The communication of information and preventative strategies regarding a public health emergency or pandemic is vital in curbing public uproar and panic (Lowbridge & Leask, 2011). This can be achieved through communicative strategies that are implemented through traditional mass media channels and social media (Kubeka, Carter & Mwaura, 2020). Mass media plays an imperative role in today's world and it can provide a unified platform for all public health communications, comprehensive healthcare education guidelines and robust social distancing strategies while still maintaining social connections (Anwar, Malik, Raees & Anwar, 2020).

During the COVID-19 outbreak, the South African government had broadcasted news regarding the pandemic through multiple traditional media platforms such as television channels, radio stations and newspapers (Kekana, 2020). Other countries across the globe, including Australia used newspapers and television information campaigns that were announced by the Prime Minister as a source of information for the public during the evolving COVID-19 pandemic (Hyland-Wood, Gardner, Leask & Ecker, 2021). However, the medium that is responsible for the rapid dissemination of COVID-19 related information, is social media due to the escalated use of these platforms where the number of social network users increased from 21.5 million in 2019 to 30.01 million users in 2021 (Statista, 2021). Social media platforms such as Twitter, Facebook, and WhatsApp, have been used to communicate both general COVID-19 information and preventative measures outlined by the government and other responsible authorities (Kekana, 2020).

Health communication and promotion

Prior to "Health Communication" being a formal concept, it was referred to as "Therapeutic Communication", that was more holistically accepted within the field of Western communication and was deeply associated with medical science. By the mid-1970's this unique

concept was replaced by a broader concept named "Health Communication". Health communication has various definitions by different scholars. Everett Rogers (1994) has contributed three classifications of Health communication, including a view from a communication viewpoint by stating that the term contains four levels which are intrapersonal health communication, interpersonal health communication, organisational health communication, and mass health communication. An intrapersonal health communication level, Kreps, Bonaguro and Query Jr. (2003), have stated that it examines the internal mental and psychological processes that influence health care, such as the health beliefs, attitudes, and values that persuade health care behaviours and decisions. Burgoon, Bonito, Ramirez Jr, Dunbar, Kam and Fischer (2002) provides a definition from an interpersonal communication aspect stating that "health communication is the dynamic interactions between the medical providers and patients and innumerable interpersonal communication activities in the consulting room". Organizational health communication utilises communication to "coordinate interdependent groups, mobilize different specialists, and share relevant health information within complex health care delivery systems to enable effective multidisciplinary provision of health care and prevention of relevant health risks" (Kreps, Bonaguro and Query Jr., 2003). From a mass communication perspective, Jackson (1992) defined health communication as "health communication is the transmission of health information through mass media channels in order to prevent diseases and promote health. Effective health communication has a great impact on people's attitudes towards health knowledge and behaviour change so that it can effectively enhance the citizens' life quality and promotes health standards." This research study falls under the mass communication perspective as it explores the role of social media in the dissemination of prevention messaging, health information and misinformation awareness by a national health institution via a platform that readily available and frequently used in South Africa.

Due to the public health crisis and mass panic caused by SARS and AIDS in 2013, studies about health communication have been developed. The field of health communication can be divided into the two sub-categories of health care delivery and health promotion. Health care delivery is based on interpersonal health communication and the relationship between health care provider and recipient. Communication skills gained by these health care providers, allow an easier communication flow, in terms of receiving health information and making treatment choices, between expert and consumer. Health promotion is more focused on mass health communication and the medium used. Health practitioners can readily exercise influence on

consumers' perceptions, attitudes and behaviours by means of persuasion through these mass media channels (Kreps, Bonaguro, & Query, 1998).

Health communication has a wide range of research topics, including disease prevention, and socio-economic problems like birth-control issues and drug abuse. Zhang (2005), a health communication scholar, claims that health communication is a multi-faceted and complex system. He divides health communication research into nine directions: the research on the media and effect of public health communication, organisational health communication studies, interpersonal health communication, health education and health promotion research, the research on the external environment of health communication, health communication and culture studies, specific research topics such as AIDS, euthanasia, homosexuality, organ transplantation and etc., the history of health communication studies, public health emergencies issues studies (public health crisis) (Zhang, 2005). This study falls under the research divisions of the media and effect of public health communication, health education and health promotion research as well as specific topics such as the public health issues studies, as it is exploring the role of social media during a pandemic in disseminating prevention messaging, health information and misinformation and fake news awareness.

Traditional media

The role of traditional media

Traditional media and new media technologies have sustained multiple positive modifications within health communication, however, the use of internet and more specifically, social media. Traditional mass media in the form of radio, television, and newspapers, have proven throughout the years, to be an effective way to persuade audiences to adopt new behaviours or inform them of important information (Baraybar-Fernandez, Arrufat-Martin & Rubira-Garcia, 2021). It also seeks to empower disadvantaged populations to fight major causes, inform a large number of people about preventative strategies and teach new health skills. Media promotes new health behaviours that enable the public to be their agents of change (Boyd & Shaw, 1995).

Since the introduction of the internet, traditional media has had to share its position within the world of health communication. The use of the internet has become ubiquitous in the field of health communication and public health where a respectable amount of research, done by health communication professionals, to establish the most effective practice in keeping

individuals immersed in improving personal healthcare management (Chou, Hunt and Beckjord, 2009). The rapid spread of the COVID-19 virus globally became a source of public worry and several uncertainties regarding the pandemic created a state of panic among the public. Mass media became a major source of information about the newly discovered SARS-COV2 Coronavirus. Media coverage of the COVID-19 news during geographical lockdowns, extended quarantines and financial and social hardships induced fear and caused psychological stress. The media played a global role in coronavirus disease tracking and updates through live dashboards. The media allowed for timely interventions by the Centre of Disease Control and Prevention (CDC) and the World Health Organisation (WHO), enabling rapid and widespread reach for public health communications.

Social Media

The definition of social media is constantly evolving and can be defined in different ways. Some definitions focus on the technological features of social media distinguishing it from traditional media. These include definitions by Kaplan and Haehlein (2010), who highlights that social media is a type of application-based program on the Internet and Web 2.0 platform, highlighting its technological features. Whereas McGowan, Wasko, Vartabedian, Miller, Freiherr and Abdolrasulnia (2012) define social media as an online environment in which users can create and consume content created by other users, it contains the feature of content being created by social media consumers for social media consumers, which is what differentiates it from traditional media. On the other hand, Wukich (2015: p.282), describes social media as an "internet-based platform that facilitates communication and content exchange between users". Social media can also be defined as "the swift and easy development, creation, dissemination and consumption of information and entertainment by both organisations and individuals" (Wollan, Smith & Zhou, 2011: xii). One of its attributes being 'participative internet' encompasses a comprehensive assortment of internet-based communications, devices, and instruments (Jones & Fox, 2009). Social media platforms have proven to be efficient in creating new relationships online as well as strengthening those relationships which already exist offline.

In terms of this research study social media includes online tools allowing individuals and communities to communicate with each other; to share information, ideas, personal messages, images, and other content and, where possible, collaborate in real time and exchange ideas

based on the data they share. Coombs (2015), suggests that social media has become integrated into everyday routines as individuals interact with societal structures and traditional mass media while, Veil, Buehner and Palenchar (2011) suggest that social media plays a large role in how consumers of information are simultaneously contributors of information, thereby providing a basis for user-generated media.

Social media use for the promotion of health information

In the past decade, social media as a communication platform has grown in popularity. The advent of social media has allowed health promotion interventions to adapt to the constant change and increased influence of social media which has greatly enhanced the promotion of health information (Li, Yang, Liu, Zhao, Zhang, Zhang, Cheung & Xiang, 2020; Hays, 2005; Dong, Du & Gardner, 2020; Salamatbakhsh, Mobaraki, Sadeghimohammadi & Ahmadzadeh, 2019). As opposed to traditional forms of media, social media offers the benefits of mass and interpersonal communication, social media can be used as an awareness and dissemination tool to enhance messages that have been distributed through traditional media and allows engagement and interaction with the audience through collaboration and co-creation of content (Schein, Wilson & Keelan, 2010; Norman, 2012). As a communication tool, social media has proven to be more superior than traditional mass media with its ability to reach a greater audience by crossing geographical borders (Chou, Prestin, Lyon & Wenk, 2013; Norman, 2012).

Social media used during public health emergencies for health promotion

Media is a powerful tool for dissemination health information and subsequently contributes to health awareness and promotion, which allows it to be an essential mediator for health communication to assist in changing attitudes and intentions of influencing health behaviour (Thomas, Peterson, Walker, Christenson, Cowley, Kosari, Baby & Naunton, 2018). It plays a crucial role in the public response to a pandemic or health emergency as it serves as a means of communication between the government, health institutions and the public, as well as it allows the media to the eye of the public. Media channels have become windows through which the public looks for accurate information, scientific sound facts, government decisions and reactions of the general public which allows the public as receivers to shape their actions and reactions during a pandemic. Social media has also been used to support interaction with its consumers by engaging its audiences in two – way communication with the institutions and

health experts as well as providing them with platforms for support group discussions (Chung, 2016; Parker, Reber, & Chon, 2016; Yu, Li, Li, Xi, Xiao & Tebes, 2020).

Since the outbreak of COVID-19, international and national news networks have promoted awareness and attempted to reduce panic and anxiety among the public through live coverage of news briefings and public service announcements, in South Africa in order to amplify messaging around COVID-19 and other misinformation, the CovidCommSA has partnered with the South African Broadcasting Commission (SABC) to air public service announcements during prime time television (Monama, 2021). Health institutions and health officials have posted and explained health guidelines and preventative measures. These include, key messages that include governmental instructions on websites and social media platforms including Twitter, Facebook and Instagram (Mheidly & Fares, 2020). Studies conducted by health institutes and health professionals have highlighted that social media encourages two-way communication with the audience that provides a platform for support from fellow social media users (Chung, 2016; Park, Reber & Chon, 2016, Yu, Li, Li, Xi, Xiao & Xiao, 2020). Various health promotion interventions that incorporated social media as the medium of information dissemination have proven to be a success based on the health campaigns demonstrating the dangers of smoking or dietary interventions that used social media platforms, had an increase in the dissemination of their information due to the popularity of the social media platform used (Chou et al., 2013). Based on these findings it is evident that social media has great potential to promote health intervention campaigns and encourage user interaction.

Social media platforms have been used by a wide range of users especially during pandemics like COVID-19, where social media was seen as the primary source of information for the public. Health institutions, including government and non-government organisations such as the World Health Organisation (WHO), Centre for Disease Control and Prevention (CDC) and more locally the National Department of Health (NDoH) and The National Institute for Communicable Diseases (NICD) in South Africa, have made use of social media to keep track of the more recent pandemics including COVID-19. Health institutions can inform the public about common health topics such as healthy living, immunization, and smoking; communicate the risk of disease outbreaks; quickly provide instructions about prevention behaviours to a broad audience during disease outbreaks; and share the latest news and inform the public of the government's handling of disease outbreaks (Yan, 2017; Jin, Austin, Vijaykumar, Jun & Nowak, 2019; Vandormael, Adam, Greuel & Barnighausen, 2020; Chan, Min, Zhang, Wang;

2020). The media also allowed for timely interventions by enabling a rapid and widespread reach of public health information which resulted in an increase in communication for safe health practices related to COVID-19 were seen, which included increased handwashing, uses of masks, and social distancing (Amwar, Malik, Raees, Anwar, 2020).

The elements of infoveillance and the rapid dissemination of health information and health interventions were identified with the primary aim of surveillance that includes analysing and looking for the unstructured information available on the internet in order to inform public health and policy (Chen & Wang, 2021). This includes analysing and looking at the raw information that can be found on the internet which is used to inform public health and policy (Eysenbach, 2009). Infoveillance has been used to specifically analyse data on social media, based on looking for the potential public health risks and monitoring the public's responses to these health issues (Chen & Wang, 2021).

One of the prominent features of social media is the quick and rapid dissemination of information. Social media provides a new avenue for the dissemination of immediate health information and can be seen as a channel whereby health professionals are able to directly communicate with the public (Wong, Ho, Olusanya, Antonini & Lyness, 2021). Thus, allowing a two-way communication via social media that encourages audience and health professional interaction and engagement. This could be an indication as to why the NDoH has used various social media platforms to disseminate information relating to COVID-19 prevention strategies as well as posts based on general information and misinformation surrounding COVID-19.

While rapid dissemination of information is a core characteristic of social media, user-generated media and content, allows the news of health emergencies to be shared and reshared, reaching millions of people without the intervening presence of journalists. Social media platforms are known for transforming how individuals and health officials communicate during these health emergencies, including man-made and infectious disease outbreaks (Veil, Buehner & Palenchar, 2011). In addition to searching and sharing information about a health emergency, social media is used to exchange personal information such as safety status during these emergencies (Jahanshir, Karimialavijen, Sheik, Vahedi and Momeni, 2017). Social media users provide each other with emotional support during and after a public health emergency by bringing people together through the sharing of personal information (Veil, Buehner & Palenchar, 2011). This research study will explore social media user engagement by analysing

the posts on the NDoH Facebook page which have encouraged audience engagement and interactivity of posts regarding prevention strategies and misinformation during lockdown level 5 in South Africa.

Many new uses for social media have emerged since 2013 compared to those highlighted by Moorhead, Hazlett, Harrison, Carroll, Irwin and Hoving (2013). The studies explore social media use for health purposes that go beyond the range of patients, the general public, and health professionals. Studies by Jha, Lin & Savoia (2016); Jin *et al.* (2019); Fu & Zhang (2019); and Bhattacharya, Srinivasan & Polgreen (2017) have paid attention to social media use by health institutions including government agencies such as international, national local health departments and nongovernmental health organizations. Moorhead *et al.* (2013), identified that social media use mostly benefits individuals who are experiencing illness or with the need for health information, while the use of social media by government agencies may benefit the whole society, especially during disease outbreaks.

Studies have identified social media to predict the future illness onset for individual users such as user's posts that include elements of stress and anxiety can predict future diagnoses of mental illness (Shen, Chen, Luo, Zhang, Feng & Liao, 2020). Social media posts can be used to predict the magnitude of an infectious outbreak like COVID-19, through the number of case count found in an area (Shen, Chen, Luo, Zhang, Feng & Liao, 2020). User-generated social media posts can be used to gain insight on the public's cognitive and behavioural responses to health-related issues. During pandemics such as the Zika Virus in 2016 and more recently, COVID – 19, social media posts have been analysed to understand public concerns and opinions (Zhang, Chen, Zhao, Wolfram & Ma, 2019; Hung, Lauren, Hon, Birmingham, Xu, Su, Hon, Park, Dang & Lipsky, 2020). These studies also looked at how the public behaved towards the implementation of recommended disease prevention strategies, the monitoring of public discourse on controversial topics such as COVID-19 tests or vaccinations and also gauged the public support of certain health – related policies (Huang, Li, Jiang, Li & Porter, 2020; Doogan, Buntine, Linger & Brunt, 2020; Zhang, Wheldon, Dunn, Tao, Huo, Zhang, Prospero, Guo & Bian, 2020; Hatchard, Quarigausi, Vasilakis & Evan-Reeves, 2019).

Social media has been greatly merged into health interventions and can perform various purposes which include health information to audiences, motivating participation in health-related events and directing campaign audiences and intervention participants to other health resources (Diddi & Lundy, 2017; Li, Sue, Tucker, Wei, Durvasula, Hu, Kang, Liao, Tang &

Ma, 2017; Ashton, Morgan, Hutchesson, Rolla & Collins, 2017; Payton, 2015). By motivating health behaviour change; intervention participants use social media to document and share their own progress of health behaviour change such as sharing a picture of a healthy meal or sharing virtual awards of weekly achievement in physical activities, setting group challenges toward health goals, and engaging in health behaviour competition with peers (Fernandez-Luque, Singh, Olf, Mejova, Weber, Aupetit, Jreige, Elmagarmid, Srivastava & Ahmedna, 2017; Mendoza, Baker, Moreno, Whitlock, Abbey-Lambertz, Waite, Colburn & Chow, 2017; Chung, Skinner, Hasty & Perrin, 2016; Fang, Ma, Mo, Zhang, Xiang & Zhang, 2019). Ultimately, at the final stage of an intervention, social media is used to reach broader and more varied populations, including those that are hard to reach, such populations with limited access to basic resources (Pagkas-Bather, Young, Chen & Schneider, 2020; Thornber, Huso, Rahman, Biswas, Rahman, Brum & Tyler, 2019).

The use of a social media platform depends greatly on the resources available within a country. International health promotion intervention campaigns on social media platforms are seen frequently, such as in Canada, where social media was used to introduce and implement public health messages into daily online conversations; and in USA where social media was used to inform and teach their population about diabetes (Harris, Mueller, Snider & Haire-Joshu, 2013; Schein, Wilson & Keelan, 2010). In developing countries such as South Africa, social media platforms have been used to offer dialogue and neutralize opinions on sexual behaviour change as well as being used to disseminate information relating to Tuberculosis (T.B) (Govender, Dyll-Myklebust, Delate & Sundar, 2013; Norman, 2012).

Various research studies have raised concerns of social media information quality and its impact on individual health outcomes (Reidy, Klonoff & Bernard-Kelly, 2019). Research conducted by Sallam, Dababseh, Yaseenm Al-Haider, Taim, Eid, Abaneh, Bakri and Mahafzah, (2020) found that people who used social media for health information were less knowledgeable about COVID-19 compared to those who got information from doctors and scientific journals. Furthermore, people who found information on social media did not confirm its accuracy with health professionals, who disagreed with the information found on social media (Crilly, Jair, Mahmood, Moin Khan, Munir, Osei-Bediako, Samir & Kayyali, 2019). As a result information obtained from social media must be credible and should be verified before being posted. It is therefore, evident that efforts to reduce misinformation on social media and improve the ability of the public to find reliable information on social media.

People with health concerns may benefit from participating in online communities in many ways, where they do not have to reveal their personal identity and are free from the risk of being stigmatized (Naslund, Aschbrenner, Marsch & Bartels, 2016). Online communities as an information channel supplement offline communication channels in terms of content and time and peers may provide more information on treatment options not raised by health professionals because of time constraints Reference. As a result, this allows people to get answers and emotional support from online communities at any given time (Naslund *et al.*2016). Online users have control over the type of help they seek and the methods they use to obtain this information which helps the audience to fulfil needs of interdependence and lessen treatment avoidance (Pretorius, Chambers & Coyle, 2019).

Merits and shortcomings of using social media during a public health emergency

Existing research on the relationship between social media use, health communication and public health emergencies have found that social media may bear health-enhancing potential in several ways (Zeng & Li, 2020). As internet access continues to expand, it will increasingly serve as a rich health resource.

Regardless of location, the internet allows its audience to gain access to a broad selection of health-related information from around the world at the click of a button. Since the Internet transcends geographical barriers, there is plenty of potential for health expert websites and related social media platforms to serve as a valuable source of health information, thus enhancing health and well-being for people around the world, particularly in developing countries (Maxfield, 2004).

Hawn (2009) identifies that due to the increase of user-generated content, information sharing is seen as more democratic and patient-controlled. This enables users to exchange health-related information that they may require and therefore making the information more consumer-centred (Hawn, 2009). According to Vance, Howe and Dellavalle (2009), public health programmes have demonstrated success in adopting social media as a communication platform for health promotion efforts. such as prevention strategies and interventions, increasing their reach through the Internet. A similar example recorded in South Africa was the 2017-2018 Listeriosis Outbreak, which WHO described as the largest outbreak of the listeriosis that had been detected globally and later released a toolkit in several official

languages of South Africa as a guide for online users to share from any location (World Health Organisation, 2020).

Health institutions can also share podcast audios and YouTube videos on various social media platforms to deliver health information (Harrison, Wilding, Bowman, Fuller, Nicholls, Pound, Reszel & Sampson, 2016; Patrick, Stukus & Nuss, 2019). Researchers have suggested approaches to combat misinformation through social media by increasing efforts from health institutions to monitor and enforce fact-checking of doubtful information on social media by promoting strategic and timely retraction to misinformation, by sharing personal experiences dispute rumours, and by using search optimization strategies within these platforms to redirect users who ask health-related questions to credible information sources (Grimes, 2020; Xie, Tan & Li, 2020, Steffens, Dunn, Wiley & Leask, 2019; Mheidly & Fares, 2020; Cuello-Garcia, Perez-Gaxiola & van Amelsvoort, 2020).

A study by Gesser-Edelsburg, Diamant, Hijazi and Mesch (2018) found that a theory-based correction message posted on Facebook by health authorities was more effective in correcting vaccination misinformation than a normal correction message. A notable forewarning of social media suggests that as the amount of information grows at an unprecedented rate, so does the amount of false and potentially harmful information (Veil, Buehner & Palenchar, 2011). Misinformation is due to inaccurate information, misleading information, or misinterpretation of health information. This can have potentially dreadful consequences, triggering mass panics among the public (Habel, Liddon & Stryker, 2009; Kortum, Edwards, Richards- Kortum, 2008).

The participatory nature of social media requires open discussion for information exchange, which allows for an increase in the possibility of wide dissemination of noncredible and potentially erroneous health information (Habel, Liddon & Stryker, 2009; Kortum, Edwards, Richards- Kortum, 2008). Social media grants both the professional as well as the general public the opportunity to spread information to the public (Sandman, 2006; Ophir, 2018; Lwin, Lu, Sheldenkar & Schulz, 2018). Social media can therefore be seen as both advantageous and disadvantageous when creating effective risk communication strategies and response.

Experts and professionals can play a critically important role as trusted sources on social media to support the spread of new information as it becomes available and address individuals

concerns as they evolve, knowing that public perceptions of risk will vary greatly among individuals. Media and social media users tend to choose specific media channels for news, based on news sources that they trust (Sandman, 2006; Hills, 2019). By highlighting the merits and shortcomings of social media use during a public health emergency, like COVID-19, the researcher tries to make sense of what motivates social media consumers to utilize social media platforms to gather and engage with COVID-19 discourses posted by a national health institution, the NDoH on their Facebook page during this pandemic.

Communication Approaches used by the WHO and NDoH during COVID-19.

During a public health emergency, health institutions such as implementing communication approaches to help manage and contain a pandemic like COVID-19. A common communication approach that was implemented both in South Africa and seen from other international communities is Risk Communication and Community Engagement (RCCE). Risk communication and community engagement have become an important component of health emergency preparedness during public health crises and is a critical component of the response to any infectious disease outbreak. The World Health Organisation has defined risk communication as the real-time exchange of information, advice and opinions among experts, community leaders, or officials and the people who are at risk that allows authorities and experts to listen to and address people's concerns and needs so that the advice they provide is relevant, trusted, and acceptable (WHO, 2018: p. 1). Community engagement is one of the many communication techniques within risk communication along with media and social media communications, as well as mass communications and stakeholder engagement.

Whereas UNICEF defines community engagement as "a foundational action for working with a wide range of traditional, community, civil society, opinion leaders; and expanding collective or group participation to address the issues that affect their lives" (Rohan, 2020: p. 1). Community engagement allows the community to become active partners in the development and control of an outbreak response. Community engagement empowers social groups and social networks through improving the responsiveness of development and humanitarian actors.

By combining these principles and strategies, all stakeholders gain access to processes for assessing, analysing, planning, leading, implementing, monitoring, and evaluating actions,

programs, and policies that will promote the survival, development, protection, and participation of the community (Gonah, 2020). According to the WHO (2018; 2020), RCCE can be used to tackle outbreaks from within a community along with the collaboration of experts and the members of the community. RCCE helps to clear the confusion and avoid misunderstandings regarding the health risk resulting in an increase in trust-building and lead to the health advice being acknowledged and followed. It allows complex and scientific information to be delivered in a way that is easily understood, accessible and trusted by the communities. RCCE bridges the gap between perceived risks within affected and at-risk populations and those seen by experts and authorities (Gonah, 2020).

These perceived risks are made up of a vast array of individual and community responses which include the receiving of recommended behaviours or response teams, as well as the unwillingness to carry out behaviours or to interact with the response teams. According to the IFRC (2018), an essential element in community engagement is an obligation to listen to community apprehensions, provide suggestions, enable choices, show empathy, including the members of the community in decision-making processes, and create an alliance around common goals of protecting the entire community.

RCCE was utilized during the Ebola outbreak in Congo, where it established with interlinking considerations in preparedness and readiness to respond to the Ebola Virus (WHO, 2018). The framework highlights the work done by health officials and local authorities as well as national and international stakeholders. In South Africa, RCCE was a key strategy that was employed early in the pandemic. A Risk Communication and Community Engagement Working group was established in March 2020, which made use of the lessons and best practices learnt within the country as well as internationally, to develop a community communication strategy. There is continuous communication with the population and messages were disseminated through a variety of channels including WhatsApp, radio, television and the internet in all the official South African languages. COVID-19 communication was carried out daily, in order to build and maintain the public's trust. Challenges faced within this communication approach include the spread of misinformation and rumours on social media and limited financial resources available and allocated to communication and engagement. There are various shortcomings surrounding community engagement and risk communication which include difficulties in managing communication, that was circulated outside of the department of health, particularly

the spread of COVID-19 rumours and misinformation (Moonasar, Pillay, Leonard, Naidoo, Mngemane, Ramkrishna, Jamaloodien, Lebese, Chetty, Bamford & Tanna, 2021).

COVID-19 as a pandemic has imposed many strategic social distancing security measures to curb the virus. These include lockdowns and quarantines, travel restrictions, and international border closure. The uncertainty of this pandemic as well as the sudden and immediate isolation caused panic and psychological distress among many populations. Adding to this panic and distress is the continuous flow of mass information in large quantities by various media channels especially via social media (Banerjee, 2020). Isolation and anxiety are key contributors to the increased use of media platforms throughout the world. Within the context of COVID-19, Scheufele and Krause (2019) have defined misinformation as “any information that is in conflict with the available credible information related to a topic that would likely be corrected if challenged.”

The infodemic of COVID-19

The media have played a crucial role in publicising information about COVID, including providing regular updates about infection and death rates both nationally and internationally as well as spreading the details about how publics can best protect themselves and others from COVID-19. There have been concerns about the ‘infodemic’ of misinformation and fake news that have been spread on news and social media sites (Orso, Federici, Copetti, Vetrugno & Bove, 2020; Meese, Frith & Wilken, 2020; Baker, Wade & Walsh, 2020; Rodrigues & Xu, 2020)

Due to social media being one of the main channels used to update information regarding the COVID-19 pandemic, there has been a huge amount of misleading information in circulation. Thus, resulting in the COVID-19 pandemic being an 'infodemic' (World Health Organisation, 2020). This infodemic refers to a great amount of mixed information that disables people from finding credible, trustworthy sources of information (Florian and Bronnimann, 2013). COVID-19 has been deemed a ‘digital pandemic’ due to the amount of information available on different media platforms, that has been dissemination since its detection. This epidemic of shared misinformation has spread faster than the actual COVID-19 virus (Chou, Gaysynsky & Vanderpool, 2020). With the increase in infection numbers, the amount of information

disseminated increased due to the various social media platforms, competing in their speed, coverage, and reach (Zhao & Xu, 2020). Almost three billion people use social media globally and for long periods of time, which makes social media the key informant of information and the main source of communication during the time of crisis or health emergency regardless of its credibility (Tankovska, 2020). The plethora of information generated and distributed daily contains a lot of myth, rumours and fake news that contributes to misinformation. The fear of unknown, which fuelled the COVID-19 infodemic, creates uncertainty which leads to anxiety and increased sharing of information without verification (Barnett, Balicer, Biodgett, Everly Jr., Omer, Parker & Links, 2020).

Compared to pandemics of the past including SARS, MERS, Influenza and Ebola, the consumption of facts and statistics from online platforms has increased during COVID-19 (Cinelli, Quattrocioni, Galeazzi, Valensise, Brugnoli, Schmidt, Zola, Zollo & Scala, 2020). However, COVID-19 is not the only pandemic to create such a stir in the helm of digital misinformation. Pandemics such as the outbreak of Influenza and the Zika and Nipah Viruses also caused a rapid dissemination of information via social media which elevated public behaviour in terms of panic, health care and precautionary measures (Cinelli et al., 2020). Since the detection of COVID-19, there has been constant flow of memes, audio, video, and text messages among various social media platforms. Instances of fake news circulating social media feeds. These include the false claim that coronavirus test kits contained the virus, people could die from satellite radiation, masks provided by the government were infected and should not be accepted and that Bill Gates suggested that the Corona Virus trials should be done in Africa (Acumen, 2020). In the United States, text messages containing misinformation were sent in the early stages of the outbreak regarding lockdowns, upcoming governmental regulations, and economic collapse, spreading their messages widely through the population (Collins, 2020).

Conspiracy theories stating that drinking hot water, snake oil, or silver, and burning incense leaves would cure coronavirus became popular (Brewster, 2020). There were many social media accounts fuelled conspiracy theories about COVID-19 as a biological weapon and directed readers and viewers to buy vitamins and other products from stores as well as social media posts that falsely linked 5G, to COVID-19 also spread widely (Marantz, 2020; O'Donnell, 2020). Anti-vaccine movements exploited the outbreak, using social media accounts opposing vaccines to lure a surge in views and followers (WHO, 2020).

Conclusion

Social media is used in various aspects of life, including the promotion of health information, communication of prevention strategies during a pandemic and combating misinformation in a time where the rapid dissemination of information is not always credible. The review of the existing literature, revealed that media has been used for the promotion of health information for a long time, but more recently social media has taken over and has been used for frequently in order to educate the public about public health emergencies and pandemics like COVID-19. This chapter discussed the discovery of COVID-19 and how it was communicated in the media, particularly the communication of prevention strategies, the various roles of social media in promoting health information and combating misinformation as well as the merits and shortcomings of social media use for health promotion and the pandemic of COVID-19 turned ‘infodemic’. The reviewed literature in this chapter will be used in conjunction with the theoretical framework outlined in the next chapter, to discuss the research findings of this study.

CHAPTER 3

THEORETICAL FRAMEWORK

Introduction

This chapter discusses the various elements of The Uses and Gratifications Theory (UGT) (Katz, Blumler & Gurevitch, 1974), which will be used to justify this research dissertation theoretically. The theory will be discussed in detail, firstly by outlining the brief history, the assumptions of the theory, the explanation of UGT and its use for the internet and social media. The chapter further discusses UGT and its position in health communication and an overview of its criticisms and shortcomings. The chapter concluded with a discussion on the relevance of the UGT to this research study.

UGT will be used as the theoretical explanation of this study based on the contributions it makes in understanding the motives and gratifications of media selection. UGT is expected to support this study by providing the necessary insights to answer the research questions and prove the aim of the study. The relevance and appropriateness of this theory will then be outlined in the context of both UGT and new media and more specifically for the ways in which the National Department of Health (NDoH) has utilised its Facebook page to discuss COVID-19. A common topic of discussion based on audience reception and the ways the NDoH has encouraged audience engagement and interactivity of posts regarding prevention strategies and misinformation during the national level 5 lockdown during the first year of pandemic in South Africa.

The Uses and Gratifications Theory

The Uses and Gratifications Theory (UGT) is a popular theory that is used to understand mass communication using traditional media and, more recently, new media. This theory emphasises the media consumer rather than the actual message disseminated via these media platforms. It focuses on the role media plays in individuals' lives rather than their effect on their lives (Katz, 1960). The theory suggests that media consumers are active rather than passive when interpreting and integrating media platforms into their everyday lives. UGT was derived from the functionalist viewpoint of mass media, where media consumers are portrayed as active rather than passive users (Klapper, 1963). It also considers the audience responsible for selecting media platforms to fulfil specific needs, which allows the various media channels to

compete against each other to obtain the audiences' gratification (Katz, Blumler & Gurevitch, 1974). As a theory it examines the motivations of media users. Researchers of UGT are most interested in, "the social and psychological origins of needs which generates expectations of mass media or other sources, which leads to differential patterns of media exposure, resulting in need gratifications and other consequences" (Katz et al., 1974: p.20). It highlights what needs motivate people to use various forms of media and what are the results of the process of trying to fulfil those needs. Media consumption is based on the needs or motives of each user while exploration of these motives answers how and why an active audience uses the media (Rubin, 2009)

History of UGT

Herta Herzog first established the theory in the 1940s. It discovered that regular users of traditional mass media, such as the radio, television, and newspapers, were not inactive but rather active media users of the messages being delivered (Herzog, 1941). By selecting a type of media to gain a sense of need fulfilment, these active audience members interact with the various media sources. Three different patterns are identified to acquire this need gratification: media consumption to gather information, media consumption to engage thoughts, and media consumption to satisfy emotions (Herzog, 1941). Katz (1961) further expanded on Herzog's media-induced gratification processes and declared that future studies should focus on the role of media rather than on its effects on people. The theory developed as a reaction to the traditional mass communication research that emphasised the 'sender and the message' model (Oliver & Nabi, 2009).

McQuail, Blumler and Brown (1974) best explained the UGT as the approach where media consumers have options for media selection and use. Studies conducted by Katz, Blumler and Gurevitch (1973) identified four crucial elements that media consumption can be used for; these include diversion to gain emotional satisfaction and stress relief, creating and maintaining personal relationships, exploration and identification of personal identity and obtaining environmental information. These elements highlight that media consumers are actively making choices to gain gratification in terms of one of the four elements above.

As a theory that originated in the 1940s, various studies were conducted on the effect of traditional mass media on audiences. These included studies by Cantril and Allport (1935),

who investigated the impact of media on radio audiences, and Waples, Berelson and Bradshaw (1940) examined the effect of the newspaper on reading audiences. Lazarfeld and Stanton (1949) studied the role of media categories on the active audience. In the 1950s and 1960s, UGT researchers explored the psychological and social aspects that highlight different media consumption patterns and their associated gratifications, which is described in a study by Schram, Lyle and Parker (1961), that explored how children's use of television was linked to their mental ability and their relationships with family and friends. Jay Blumler and Dennis McQuail (1969) examined the UK election by studying people's motives for watching specific political programmes on television and categorising the reasons of the audience for viewing a particular programme which aimed to classify viewers according to their needs to understand any potential mass media effects. These studies were researched to understand better ways to communicate and the consequences of these messages on the media consumers.

Assumptions of UGT

The primary assumption of UGT is based on the comprehension of the aims and gratifications of media consumption. UGT investigates the importance of media consumers within the media sphere whilst using media to satisfy their social and psychological needs (Lueng & Wei, 2000). Research during the 1970s focused on audience motivations and how the audience used media to gratify social and psychological needs. The main idea of UGT implies that media users seek to satisfy their psychological needs by choosing a media platform from among its competitors based on which one is best equipped to bring about the most gratification. According to UGT, it is not the media platform that offers gratification but rather, how gratification is obtained and is affected by reasons and purposes of why people use the media channel. Previous studies using UGT have identified various classifications for the goals and gratifications individuals intend to satisfy with media use such as social interaction, entertainment, information-seeking, and convenience utility (Whiting & Williams, 2013). This research study will focus on the goals and gratification of individuals during a global pandemic, especially to explore the purpose of their social interaction within the context of COVID-19 and accessing health related COVID-19 information.

Apart from the primary assumption, Katz, Blumler and Gurevitch (1974) have indicated other beliefs of the theory, which include that media opposes the various origins for needs fulfilment as well as media consumers contain enough self-awareness. When it comes to media selection,

and the reasons to supply researchers with a precise illustration of their use and only media users can discover the value and meaning of the content displayed by the chosen media. UGT makes five assumptions according to Katz, R and Gurevitch (1974). The first assumption is that the audience is active, at the time of the introduction of this theory, this indicated a shift in audience position from one in which the audience passively consumes whatever media was put in front of them. The second assumption is that media use is goal oriented, where people do not just sit in front of the television simply because it is there; they are motivated to use media to accomplish some goal. The third assumption asserts that media use fulfilled needs. The major goal of media consumers is to fulfil one or more of these needs. The fourth assumption states that people have enough self-awareness to express their needs. This means that, when prompted, people can name their motivation for using a medium. The final assumption is that gratifications are relative to the attributes, content, and contexts of the medium. This means that not all media fulfil needs equally (Rubin, 2009).

Key Constructs of UGT

UGT researchers like Rubin (1981) and Ko, Cho and Roberts (2005) refer to 'motivations' when describing why users consume certain media and what satisfactions they eventually receive from media. The motivations or needs discussed in terms of UGT take the form of strengthening or weakening cognitive, affective, and integrative connections with some referent, either oneself, friends or family and tradition, social and political institutions (Katz, Haas & Gurevitch, 1973:179). The goals for media use by Katz, Blumler and Gurevitch (1973) include cognitive needs, which use media to acquire information, knowledge and understanding; affective needs, which have using media to gratify needs that require emotions, pleasure, and feelings, personal integrative which satisfy the requirements of credibility, stability and status, integrative social needs which use media to fulfil the need of family and friend interaction and tension release needs which include utilising media to escape or divert reality.

McQuail (1972), distinguished four gratification categories which include diversion, personal relationships, personal identity, and surveillance. The audience responds to various media channels or platforms for entertainment and diversion. Media consumers utilise media to escape from their daily routine and divert their attention from the real world, information, and education where some media texts are consumed so that audiences are informed and educated

(Rubin, 1981). Later McQuail (1984), proposed an updated version that included social integration, social involvement, entertainment, information, and personal identity.

Katz et al.(1973) outlined a branch of UGT that further explains the theory, known as gratifications sought (GS) and gratifications obtained (GO); these can be defined as the belief which distinguishes expectations of media content and the satisfaction received from media consumption. According to Kim (2014), the difference between gratification sought and obtained is the relationship between the needs of the audience and media selection, which further indicated that an individual's media choice would determine the type of gratification they will require. In order to explore the role of social media in the time of a pandemic, like COVID-19, exploring the motivation and justification behind audience use and interaction of social media is required. The key constructs, of social interaction, information-seeking, and entertainment, outlined above will be used to answer the research questions of the study, by analysing the motives behind audience social media use as well as engagement and interaction with health communication discourses disseminated by the NDoH's Facebook page.

UGT, the internet and social media

The basic premise of UGT explains how the audience uses media platforms for their own needs and gratifications. This user-aligned theory's focal point is the use of the media compared to the effect the media has on its users (Katz et al., 1974). Although UGT was initially created, applied, and created based on traditional media, its profusion of characteristics allows it to be used in various media channels, from traditional media to new media platforms like social media (Hunold, 2014; Gallion, 2014). Ruggiero (2000: 3) states that computer-mediated communication has revitalised the importance of UGT. UGT has always been a cutting-edge theoretical approach in the beginning stages of introducing new mass communication mediums such as newspapers, radio, television and more recently, the internet (Ruggiero, 2000).

The uses and gratifications theory has been applied to the range of new media that has surfaced after mass and traditional media. With its inherent interactivity and user-directed nature, the internet has proven to be a well-suited medium of explaining the use and reasons for media consumption (Stafford, Stafford & Schkade, 2004). Various studies based on Ruggiero's (2000) work it has been asserted that UGT is appropriate for examining new media as the public increases their media choices, motivations, and satisfaction based on audience analyses.

Ruggero (2000) further examined UGT and the different social media elements, proving that UGT remains significant in studying social media. The astonishing consumption and popularity of social media in this present time have allowed researchers to scrutinise the continuing acceptance and use of social media by using the UGT to comprehend its level of motivation. A study conducted by Lineberry (2012) explored user-created content that enables its users to create and publish different kinds of media content to make visible communication. Additionally, the users may perform different activities on social media platforms for various reasons and motivations. A major finding was that the motivations for obtaining "bonding," "bridging" and "linking" social capital had affected individuals' user-created content activity. Another study by Karimi, Khodabandelou, Ehsani & Ahmad (2014) drew from the uses and gratifications theory to examine the gratifications sought and the gratifications obtained from using social media platforms among Iranian, Malaysian, British and South African students. The comparison drew conclusions about how social media platforms fulfil users' needs differed with different cultures. The researchers found that cultural differences may determine the uses and gratifications of social media platforms. Basilisco & Cha's (2015) study is an attempt to examine the motives that motivates Filipinos to use Facebook and the impact of their usage to their social capital and life satisfaction. The findings of the study suggest a significant degree on the identified motivations of seeking friends, entertainment, information, and convenience, social capital and life satisfaction aside social support.

Quan-Haase and Young (2011) suggested that an effective technique observed why people begin using any type of media involves the uses and gratifications theory due to its comprehension characteristic of the motivation behind media selection and the needs it gratifies. Researchers Cummings et al.(2008); Valentine (2011); Hunold (2014) and Al-Barashdi et al.(2015) have used UGT to study motivations and gratifications derived from social media use, which supports the aim of the study. Harrell (2000) has pointed out that UGT has been instrumental in allowing audiences to select various media channels that are aligned with their needs and desires such as information-seeking, escapism, companionship or entertainment needs, beginning with the radio and now social media. The internet and social media progression have created a more effective medium of interactivity for its users (Ruggiero, 2000). Users are even more actively engaged communication participants in the internet environment compared to other traditional media (Ruggiero, 2000). However, Katz et al.(1974) argued that accessible media choices compete to satisfy individual needs. Thus, the use of the internet, traditional media and other options available on the internet such as social

media platforms like Facebook, will assist in exploring the role of social media during a pandemic where, during the initial stages, physical isolation was a preventative measure. The theory has been revisited and revitalised to track the digital age and social media developments, where Krishnatray, Singh, Ragavhan and Varma (2009) have shown some basic internet social functions like chatting and interaction has allowed researchers like Kremar and Strizhakova (2009: p.60) to consider that the uses and gratifications of traditional media platforms, share many similarities as well as differences with newer media platforms.

Song, LaRose, Eastin and Carolyn (2004) suggests that there is no distinction between the audience of traditional mass media and social media. However, Slot and Frissen (2008) argue that the interactive nature that was come from Web 2.0 is what makes these users different from those of traditional mass media users. This interactive nature makes social media users the consumer and the creator of media content, allowing them to create and share content and enable online communication, making social media a more interactive medium than traditional mass media. A fundamental constituent of UGT revolves around Web 2.0's level of interactivity characteristic and the active audience. While traditional media and internet share overlaps with need fulfilment, in general, the internet offers satisfaction with more needs than any traditional media source (Dimmick, Chen & Li, 2004). This may be due to two factors. First, the interactive nature of the internet is such that users may shape the medium to fit their needs. Second, many activities accomplished by using traditional media can also be accomplished by using the internet, such as watching television shows and accessing news.

Ruggeiro (2000) has defined the active audience, which the theory is characterised by, as goal-directed members that specifically engage with the information and media content to suit their personal and social context; therefore, they choose specific media platforms and content to satisfy various needs, which suggests that active audience members select media platforms that are suitable for fulfilling their media content needs. The media users' conditions are governed by information seeking, entertainment, distraction in which the audience expects to gratify their social needs (Katz et al., 1974). Along with these, UGT studies done on the internet has also found three new categories of gratification, namely, content, process, and social gratification (Stafford, Stafford and Schkade, 2004). Stafford et al.(2004) define content gratification as the desired outcome of internet consumption that includes informational content. Key aspects of content gratification include information, killing time and entertainment. Content gratification further states that audience member motivation in using a media platform, is connected with

their attitude and behaviour relating to the medium (Rubin, 1981). This implies that content gratification is an important need for every media user regardless of the media platform used (Lin, 1999). However, Harrell (2000) argues that a primary function of the internet is information-seeking. This gratification is highly dependent on process gratification where Ha and Chah-Olmsted (2004) have shown that the content of website should offer updated information to fulfil the information-seeking audience, and which will increase website traffic. A study conducted by Chae and Chung (2010) explored the viewers preference for a specific type of TV programme will actively and positively affect their willingness to subscribe to an Internet Protocol Television (IPTV) subscription that offers specific bundle services, illustrates how the specific content related to audience needs will result in an increase website traffic and subscriptions.

Process gratification focuses on the convenience and ease of use and is associated with words such as "resources, search engines, surfing, technology and websites" (Stafford et al, 2004: p. 13). Due to the convenience that process gratification provides, many traditional media channels will merge with the Internet to create a new hybrid medium like streaming services and online newspapers, to satisfy the audience needs (Kaye, 1998). Websites play a big role in process gratification, where a television or newspaper website will have increased visitor interest due to the information updated on the website, which further cements the interdependence of content and process gratification (Eighmey & McCord, 1998: p. 192). UGT researchers Krishnatray, Singh, Ragavhan & Varma (2009), refer to social gratification as the gratification that media users get from interaction and chatting with friends and others. This social factor represents a new social dimension within the Internet media and is important for Internet-based media like social media platforms because it involves the audiences' interpersonal, social interaction and social influence for individuals (Satfford, et al., 2004).

The interactive nature of new media has led to the re-examination of motives found in the original UGT studies. Social media scholars have done a great deal of research on how and why people use social media, these include studies by Muntinga, Moorman & Smit (2011), who have presented empowerment and social pressure as two new motives that align with social media use along with the four original motives stipulated by McQuail (1984). Quan-Haase and Young (2010) examined the gratifications obtained by Facebook resulted in information-seeking, as well as building and maintaining personal relationships which piqued the interest in the link between traditional media motives and internet motives since the internet

gained popularity. Support for a relationship between motives for using TV and motives for using the internet has been found in multiple studies (Kaye, 1998; Ferguson & Perse, 2000; Flanagin & Metzger, 2001). Ferguson and Perse (2000) used already established TV viewing motives – entertainment, passing time, relaxation, escape and social information and determined that participants motive for viewing TV were like those of surfing the internet. Flanagin and Metzger (2001) determined that with the introduction of the internet, communication needs have not changed significantly, they found that internet information-seeking and information-giving motives are similar to those of other mass media, such as newspapers, TV and books. Results showed that needs fulfilled are consistent with past research on traditional media; traditional needs produced the same clusters, regardless of the technology used (Flanagin & Metzger, 2001).

Examination of the literature on the internet use further yields similar results. In general, motivation was the best predictor of internet dependency such that more motivation yields more dependency (Sun, Rubin & Haridakis, 2008). More internet dependency means that the more motivations one has, the more they will depend on the Internet to fulfil needs over other media platforms. When examining which motives best explained internet use in terms of internet dependency, five factors have been developed: substitution, information, social interaction, convenience, and control. Substitution includes motives for relaxation and escape. This motivation reflects the use of the internet as a displacement activity. Information includes needs for information and surveillance, reflecting the use of the internet as a source of information searching. Social interaction includes needs of inclusion, companionship, and expression and reflects using the internet to interact with others. Convenience as a motive reflects on using the internet for information because it is convenient. Finally, the control motivation for information seeking was the best predictor of web browsing.

Research conducted by Asemah (2011), Gallion (2010) and Whiting and Williams (2013) has highlighted that the main reasons for social media use include interaction, killing time, entertainment, seeking and sharing of information, socialisation, self-expression, education, surveillance and communication. According to Asemah (2011), social interaction is one of the critical factors in social media. One of the critical functions of mass media is to be a forum for public discussion; now, with social networks such as Facebook and Online Forums, people can participate and interact on various issues from the comfort of their own homes. Similar findings by Whiting and Williams (2013) and Papoola (2014) stated that almost eighty per cent of

respondents used social media to socialise and interact with their family, spouses and new and old friends. Research by Whiting and Williams (2013) and Edegoh, Asemah, and Ekanem et al.(2013) stated that about seventy-five percent of their respondents use Facebook when they feel bored at work or school. This shows that most people use media to release their tension or as a diversion.

The emergence of social media has sustained one of the essential functions of mass media, namely entertainment. Park, Kee and Valenzuela (2009) highlighted that their findings included that audience members use social media solely to satisfy their needs for leisure and amusement. Whiting and Williams (2013) further elaborated that sixty-four percent of their findings used social media to listen to jokes, play games, read funny and humorous comments and watch things that make them laugh. Social media has made searching and sharing information easily attainable. The characteristic of UGT that makes it possible for people to use media for different needs is underlined by Whiting and Williams (2013), where eighty percent of their respondents utilise social media to enquire about information ranging from deals, sales and products to birthdays, parties, and DIYs.

According to Gallion (2010), socialisation is a central and essential element of applying UGT to social media studies. Edegoh et al.(2013) studied Facebook and Relationship management and discovered that people used Facebook to either make new friends or rekindle old friendships. Socialisation highlights the need to meet new friends and maintain relationships. Personal identity or self-status enables many people to interact with social media when they want to be known or want to impact others. Whiting and Williams (2013) discovered that fifty-six percent of their respondents used social media to express their opinions and thoughts by liking posts, photos, and comments. Whereas according to Asemah (2011), people turn to media for learning and self-education, thus, making education one of the most critical functions of mass media and the rise of social media has made this function easier to obtain and use. UGT allows its audience to be active by doing things themselves. Studies done by Omekwu, Eke, and Odoh (2014) and Papoola (2014) highlighted that one of the primary uses of social media was academic reasons. Search engines such as Google and Wikis allow users to search for scholarly information to enhance their learning. McQuail et al.(1972) suggest that individuals used certain media to inspect what is happening within and outside their immediate surroundings. Thirty-two percent of Whiting and Williams (2013) respondents utilised social media to monitor and follow what others are doing. Due to space, fear and censorship of

traditional mass media, the advent of mobile phones, camera phones, uploading pictures, images, and videos on social media platforms has made disseminating information more accessible (Papoola, 2014).

Social media has given its users the opportunity and freedom to communicate through different groups, discussion boards, pages, and forums. Unlike traditional media, where feedback is delayed, social media users enjoy the character of immediate feedback. Whiting and Williams (2013) found that fifty-six percent of their results use Facebook to gossip and discuss what they have seen or read on social media. A study by Hossain (2018) explored why individuals use Facebook in terms of UGT, which resulted in understanding that UGT directly affects the user's intention. More recently, a study researching the uses and gratifications of problematic social media use among university students found that the role of social media use motivates the reason why individuals use popular social media platforms (Kircaburun, Alhabash, Tosuntas and Griffiths, 2020). Introne, Gokce, Iandoli, DeCook & Elzeini (2018) established information seeking, information erudition, entertainment, and relational communication as some of the gratifications people obtain from social media usage. Similarly, Dunne et al.(2010) found that information probing, relationship conservation and peer approval were associated with the use of social networking platforms. Park and Blenkinsopp (2009) highlighted some gratifications related to social media usage, including entertainment, status-seeking, information seeking, and socialisation. These gratifications have also been extended to understand news and knowledge sharing behaviour (Thompson et al., 2019; Lee & Ma, 2012; Chiu et al., 2006).

Many people have experienced loneliness and social isolation during the pandemic, as a result, they seek to connect and interact with others via mediated communication platforms such as social media and online communication methods. In addition to social connections, these media platforms allow their users to fulfil other gratifications that are sought. Due to the magnitude of uncertainty, people are actively seeking information about COVID-19. Current research conducted in the USA has shown that 80% of the population acquired COVID-19 related information through social media and interpersonal media like texting (Shearer & Mitchell, 2021).

UGT and Health communication

Expanding technologies have brought UGT to the forefront of communications research. Ruggiero (2000) discusses three crucial elements, interactivity, demassification and asynchronicity, that will help shape UGT in the future, especially in expanding new media and intended technologies. Therefore, this research study will use these elements of UGT and apply them to health communication research, which will be used further to answer the research questions of this research study.

Interactivity highlights the role of the active audience made up of five facets which include interactivity in their description; these include playfulness, choice, connectedness, information collection and reciprocal communication (Ruggiero, 2000). Within the field of health communication research, active health consumers can utilise digital and online platforms to seek health information, interact with other health consumers or even interact with health care providers based on their needs and uses. Their media response is most likely based on the gratification of needs and behaviours, which aids this research study to address the following research question about the ways in which the National Department of Health's (NDoH) Facebook page encouraged audience engagement and interactivity of their posts regarding prevention strategies and misinformation during the level 5 national lockdown in South Africa. Demassification is defined as breaking down the media industry into smaller components so that products appeal to the targeted audience, which is relevant to the new media market (Ruggiero, 2000). As internet users become producers, the procedure and directing of demassification is infinite. In health communication research, traditional consumers of online health information can become producers and are thus able to target similar populations and others with internet platforms. Asynchronicity of new media allows consumers to interact at their convenience without sacrificing the sense of 'participation' (Ruggiero, 2000). This is specifically relevant in health information exchange. Communication between the public and health experts begins to leverage online technologies; such tools include email, secure electronic messaging, and accessing and updating electronic health records. Internet technologies allow these behaviours to be done in an asynchronous manner which is more likely to meet the needs of its users.

Over time, studies have adopted varying lists of motivations for media use and health information. Some internet-specific explanations that have been tested include social connection to family and friends learning information about new things, and acquiring goods and services (Cho, Gil de Zuniga, Humane, Nah, Rojas & Shah, 2003). Health information-seeking motives are more specific, including seeking information about the accuracy of a diagnosis, reasons for recommending a treatment, explaining an illness, information on side effects, treatment options and lifestyle information such as diet and nutrition (Sen, 2008).

A research study conducted by Chen, Hou and Zhao (2016) aimed to find the influencing characteristics and factors of consumers seeking health information and provide recommendations to media managers to promote health communication through social media by using the Uses and Gratifications Theory. The study found that the gratification of health information and its platforms positively affected attitudes toward health information-seeking behaviour. Studies conducted by Victoria Rideout (2001), showed that the internet has been used for searching health information which resulted in behaviour change among teenagers aged between 15 to 24 years old. Amanda Lenhart's (2000) research showed that almost 55% of adults in America have been using the internet for searching health information, health information searched included information for themselves, and the people care about, the results showed that most of internet health information users were one way communication oriented which means they lack the interaction of medical professionals. Bernhardt (2002) conducted an exploratory study with African America and European American on internet-based health communication on human genetics. Results shows that the respondents think that internet has great power on delivering health information, however many of them worried about the accuracy and reliability of the online information, so they have strong concerns on their privacy and lack of trust for many websites. Later, Dorothy (2007), conducted research on behaviours and processes of women who seek health information through the internet and found that the internet health information has great impact on decision making. These research studies conducted in the past, have provided a basis in researching the ways in which the UGT has been used in health communication and promotion and will allow this research study to draw on the various conclusions to support the rationale of this study, as it focuses on how UGT can be applied to the motivations and reasons behind accessing health information on social media.

Uses and Gratifications Theory used to promote pandemic awareness

UGT has been widely used in the studying the prevention awareness campaigns during HIV/AIDS. A study conducted in Nigeria that researched the effectiveness of advertisement messages by governmental and non-governmental institutions to the masses (Utulu, 2011). These awareness messages were aimed at lower classes in Nigerian society and disseminated by the People Living with HIV and AIDS through mass media channels. UGT as an audience-centred approach claimed that people use media platforms to fulfil specific gratifications. Information needed about HIV and AIDS could be obtained from any media source that contained prevention awareness programmes on HIV and AIDS, that the audience would choose (Utulu, 2011).

Social media platforms use during the COVID-19 pandemic have been able to assist in information dissemination, sharing of ideas as well as knowledge base items during the pandemic lockdown, this enabled people to create situational awareness, monitor and respond to numerous public reactions and concerns during the pandemic. Research studies conducted by Galleon (2010); Asemah (2011) and Whiting & Williams (2013), state that most of the people use social media for interaction, killing time, entertainment, seeking and sharing of information, socialization, self-expression, education, surveillance, and communication, which were evidently used during the COVID-19 lockdown across the world.

Social interaction or integration is one of the key factors why people use social media. Social networks such as Facebook and other online forums allows users to participate and interact on various issues during the pandemic lockdown. Social media makes it easy for people to search and share information that they could not get elsewhere. With one of the fundamental functions of mass media being to educate people, Asemah (2011) reinforced that people turn to media for learning and self-education. UGT makes users more active by allowing them to do things by themselves, for themselves. Social media search engines such as Google and Wikis allow people to look for educational articles to support their learning during the lockdown (Ayoola, 2020).

Social media provides the opportunity and freedom for users to communicate among themselves through various groups, discussion boards, pages, professional and educational forums, unlike traditional media where feedback is delayed or not guaranteed, participants on social media enjoyed the privilege of immediate feedback (Ayoola, 2020). The key constructs

of UGT that will be utilized in this research study, while trying to explore the role of social media within COVID-19 prevention and mis/information discourses, include information-seeking, social interaction, and entertainment.

UGT Limitations and critics

UGT is deemed necessary within a time spearheaded by more interactive media that includes online and digital technologies. These media have interpersonal properties and traditional properties that may influence use and gratification (Rubin & Rubin, 1985; Ruggiero, 2000). The theory, however, is not without its shortcomings. A vital critic and drawback are based on the idea that audience members are always aware of their needs and actively seek out media channels and content to satisfy said needs. However, Tanta, Mihovilović and Sablić (2014) claimed that it is somewhat uncertain that every individual is consciously aware of their social condition and can accurately articulate their needs.

Ruggiero (2000) critically discovered that early studies of the theory focused on individualistic gratifications, making it difficult to see beyond the audience studied, which does not allow its findings to be generalised. This critic is supported by Robert White (1994), who highlights that the frameworks of UGT allowed people to select the media component they desire, and the means of clarification is only focused on such individualistic opinions. He further discussed that opposed to the traditional media, where the freedom of selection was more dependent on the availability of media content and its credibility, the introduction of the internet had significantly changed the audience's perspective by providing a plethora of media content click of a button. A common criticism of the uses and gratifications approach was that it was atheoretical and was closer to a strategy than an actual theory. Palmgreen and Rayburn (1974) argued in the approach's defence, saying that a hallmark of any theory is its ability to predict a phenomenon and that by moving from merely measuring gratifications derived to measuring gratifications sought initially and gratifications ultimately obtained, researchers could predict patterns of future use of the media.

Ruggiero (2000:7) pointed out five critiques of the theory and how it applies to previous entities. Firstly, the theory focused mainly on the audience use of media, which renders a 'one man' philosophy about a particular media. the theory failed to embrace a communal reason for media consumption. Secondly studies from the UGT perspectives are secluded and motives are

categorically generalised because of findings from research. Thirdly, entities such as motives, needs, behaviour are still in need of perfect explanation. Fourth, there proves to be an inadequate scholarly explanation on the central element of the theory; 'motives, gratification', there is lack of shared definition. Lastly, the theory's perspective assumes, findings conveyed from the research are usually from an active audience that has been existing in the pre-assumptions of the researcher.

Rosentain and Grant (1997) argued that UGT has failed in trying to generate relationship between the programme content of a media to its audience satisfaction and reasons for programme selection; this is to say that there must be a level of relationship between the programme content and reasons for programme selection by the audience which the theory has failed to examine. Ruggiero (2000) argued that the reapproach of the UGT should be taken under UGT studies, which will provide a refined theoretical explanation and furnish a benchmark for other studies in the context of motives for media use, particularly when dealing with human personality. Ruggiero (2000) further elaborates that an individuals' understanding of media is being misjudged for the actual behaviour of the audience towards a media platform. However, Ruggiero (2000) suggested that through the critical research of the theory, there is an observation that the audience perception of media content is completely different from the users intended meanings of media content.

Relevance to study

The UGT has been a theory of communication that examines why and how people engage media although UGT was originally used to explore traditional media (Katz et al., 1973) with increased relevance in the era of social media. According to Ruggiero (2000), the rise of the internet has come with changing the roles of traditional media, this transition to the new media comes with new changes in audiences personal and social habits, this change promotes the re-introduction of the UGT into the social media studies. Stafford et al.(2004), supported the assertions of Ruggiero (2000) that new media have relaunched studies to engage in the use of UGT. Li (2005) expressed that there is a difference between the people, the people who use the traditional media (radio, newspaper and TV) to people who have adopted the use of social media to consume basic media content. Li (2005) further suggests that social media gives the opportunity to audience to actively seek information and messages that befits their interest. Kim (2014) states that UGT proves to remain relevant in exploring the new media by applying it to the two-way communication enabled by social media. Further exploring the study of

Ruggiero (2000), Kim (2014) pointed out three factors that distinguish the social media from the traditional media which include social media creates interactivity among its users; there is demassification of social media use, the use of social media cannot be controlled, and social media is recent in time.

UGT is considered fit for this research study because it allows investigative studies in the media and communication channels that meets with the psychological needs, motives, and gratification of a media channel through its content (Lin, 1996). Therefore, UGT is an ideal approach to discuss and identify the reasons behind user response and engagement with prevention messaging and information posts on Facebook, during a pandemic like COVID-19, where there is limited physical interaction with family, friends, and peers (Whiting & William, 2013; Kim, 2014). This theory serves as a framework that will assist in answering the research questions of the study, which include the ways in which the National Department of Health (NDoH) has utilised its Facebook page for discussions around COVID-19; the common topic of discussion based in on audience reception and the ways the NDoH has encouraged audience engagement and interactivity of posts regrading prevention strategies and misinformation during the national level 5 lockdown in South Africa.

The well-established framework of UGT provides insights into the new media and found a way to reform the theory into providing an explanation for its social benefits of entertainment, information and what motivates individuals to join social media and the gratification obtained from its ongoing use. The continuous engagement of the UGT suggests that it has remained relevant in media and communication studies (Ruggiero, 2000).

CHAPTER FOUR

METHODOLOGY

Introduction

The previous chapter outlined the theoretical framework that underpinned the study, namely the Uses and Gratifications Theory (UGT), a theory which related to the motivation of audience engagement and interactivity with COVID-19 prevention messaging and misinformation awareness posted by the NDoH on Facebook. This chapter presents the philosophical position (Interpretivism), research approach (qualitative research approach), and the research design (exploratory research design) of this research study as well as the data collection and analysis methods (Qualitative Content Analysis) will also be highlighted.

Research Paradigm

Interpretivist Paradigm

Research paradigms can be seen as the philosophical position used to study and make sense of phenomena (Mertens, 2012). According to Lincoln and Guba (1985), a paradigm consists of four components, epistemology, ontology, methodology and axiology. These components contain the basic assumptions, beliefs, norms, and values of each paradigm.

Epistemology is determined as how knowledge is understood and used to report how we learn about something, what is true or accurate, and what constitutes knowledge within the world (Cooksey & McDonald, 2011). It deals with the foundations of knowledge, the different types, the ways to obtain it, and how it should be explained to other people. Central to the epistemological question is how people gather and make sense of the researcher's knowledge and how to improve their own research knowledge and understanding. Schwandt (1997) describes it as understanding how knowledge is formed and justified. The importance of epistemology is that it helps determine how much trust you should put into your data.

Ontology refers to dealing with the assumptions we make, whether they relate to the nature of the social phenomenon we are exploring or the assumptions we make for the sake of believing something is real (Scotland, 2012). In philosophy, it deals with what exists and what is becoming, not only as an explanation but in relation to the essential groups for everything that exists (Scotland, 2012). As the researcher, it examines your belief system based on the nature of existence and being. In general, it is a critical examination of the assertions we make when

believing something to be authentic or at the heart of the social phenomenon being studied. By doing so, the researcher can better conceptualize the nature and form of reality as well as what can be learned from it. Understanding how you make sense of the data you collect depends on your philosophical assumptions about reality. By aiming to explore such dimensions, you can better understand the nature, importance, and potential approaches to a research problem which can then contribute to solving the problem. In addition to helping define the world, ontology lends important insight into explaining how the world really works (Scott & Usher, 2004).

In order to interpret the meaning in research data, the researcher can analyse the foundational concepts that constitutes themes. Research using ontology allows the researcher to explore their fundamental views on reality and existence in an open-ended manner. Understanding how you make sense of the data you collect, depends on your philosophical assumptions about reality. In order to answer your research question, comprehend the research being conducted and contribute to the solution, the researcher requires concepts and propositions that help guide the researcher's thinking.

A 'methodology' is a term used to describe the processes or methods found in a well-planned research study (Keeves, 1997). These methods and procedures include data collection, sampling, instruments required to conduct the study, and data analysis. The methodology describes the framework for establishing and consolidating a systematic approach to addressing a problem in a research project. It includes assertions made, detailed shortcomings and the minimization of obstacles. Essentially, we gain knowledge of the world or about parts of it by learning how it works (Moreno, 1947).

Axiology analyses the ethical dimensions of a research study. It specifically deals with deciding what is right (Finnis, 1980). In order to do this, the researcher must understand correct and incorrect behaviours of the participants as they relate to the research which requires the definition, evaluation, and interpretations of concepts. The goal is to determine the value that we will place on the various aspects of the research, including sample population, data, and the audience to whom the findings will be communicated. Axiology is best guided by four categories of ethical conduct namely, teleology, deontology, morality, and fairness. Teleology refers to a theory of moral responsibility which posits that acting in a self-preserving or self-empowering manner, or to pursue a worthwhile cause is an obligation for every human action. Teleology, therefore, is concerned with the fact that research should aim to produce meaningful

results. Deontology is the belief that every decision made during a research study contains an outcome, which will have a positive impact on the participants, researchers, and the public (Scheffler, 1982). Furthermore, it has the flexibility to deal with individual participants and observations. Morality refers to the values that the researcher should maintain, which are intrinsic to the research. The concept of fairness reminds researchers that all research participants should be treated equally, and all their rights should be respected (Kivunja & Kuyini, 2017).

Research studies can fall within one of the three research paradigms, namely positivism, interpretivism and the critical paradigm. The positivist paradigm or positivism refers to a lens through which worldviews define scientific research methods used during a research study. According to Comte (1856), the establishment of knowledge and understanding human behaviour requires scientific analysis such as experimentation, observation and reasoning based on human experience. This method purely relies on a process of experimentation as an essential part of exploring observations and providing solutions to the problems being researched. This paradigm discovers the causes and effects of nature and is a worldview that interprets observation in terms of facts or measurable entities (Fadhel, 2002). Research within this paradigm makes use of deductive logic, formulation of hypotheses, testing of hypotheses, providing operational definitions and mathematical equations, calculations, extrapolations, and expressions to arrive at a conclusion (Kivunja & Kuyini, 2017). Measured outcomes are used to provide explanations and to make predictions. These measurable outcomes are based on four assumptions, namely determinism, empiricism, parsimony, and generalizability (Cohen, Manion & Morrison, 2000).

The interpretivist paradigm or interpretivism aims to make sense of the human experience (Guba & Lincoln, 1989). This paradigm encourages the researcher to ‘get into the head of the research participants’, which allows them to understand and make sense of the thoughts of the participants and how they understand the context they find themselves in. The participants’ point of view is of more importance than that of the researcher. A key aspect is understanding the research participants and how they make sense of the environment around them. As a result, the interpretivist paradigm relies on the fact that reality is socially constructed which is why it is sometimes referred to as the constructivist paradigm (Bodgan & Biklen, 1998). Within this paradigm, theory is grounded in the data collected rather than the theory being used to collect the data. Interpretivism is a research paradigm that focuses on the belief that reality is created

through subjective perceptions and interpretations of reality (Croucher and Cronn-Mills, 2015). Within this paradigm, the researcher aims to understand the meaning of behaviour or experience from the perspective of the research participants, by interacting with their social context (du Plooy-Cilliers, Davis and Bezuidenhout, 2014).

According to Lincoln & Guba (1985) and Morgan (2007) research carried out within the interpretivism paradigm contains the following characteristics:

- A statement that admits the social world cannot be understood from the viewpoint of an individual.
- Research participants and researchers will inevitably interact when carrying out research.
- Context is vital for knowledge and understanding.
- It is important to make explicit the values associated with the belief that knowledge is created by findings.
- Understanding the individual is more important than understanding universal laws.
- There is an interdependent relationship between causes and effects.
- And a systematic pursuit of understanding requires the consideration of contextual factors.

Research carried out within this paradigm should adhere to the four criteria of trustworthiness and authenticity, which include credibility, dependability, confirmability, and transferability (Guba, 1981). Credibility refers to the extent to which data and data analysis are believable, trustworthy, and authentic (Guba, 1981). Dependability is the ability of observing the same outcome or findings under similar circumstances. Guba (1981), however, argues that dealing with human behaviour is always changing, contextual and subject to multiple interpretations of reality which means that the researcher is unable to replicate the results. Confirmability is the extent to which the results and findings of the research study can be confirmed by others. Transferability refers to the researchers' efforts to make sure that they provide enough contextual data about their research so that the audience can relate to the findings and apply them to their own contexts (Lincoln & Guba, 1985).

The critical paradigm situates research in social justice issues and seeks to address the protentional social and economic issues by making use of both scientific methods as well as human behaviour interaction and observation (Kivunja & Kuyini, 2017). This research study falls under the interpretivism paradigm due to the explorative nature of the inquiry into the role

of social media in health promotion during the COVID-19 pandemic. The study aims to understand in what ways health communication has utilised social media, in order to raise awareness on prevention messaging and misinformation and fake news awareness during a public health emergency by observing audience engagement and interactivity within the comments of the selected Facebook posts.

Research Approach and Design

Qualitative Research Approach

Research methodology is conducted during a study in which data is gained and aims to give a study a work plan. The research methodology influences the choice of study design and data collection strategy adopted in a research study (Leedy & Ormrod, 2001: p. 14). The research methodology is the method a researcher uses to carry out a research study. Kreuger and Neuman (2006: p. 150) state that a methodology is a procedural way to offer explanations to research problems; it is the science of studying how a research study should be carried out. Leedy and Ormrod (2001: p.14) further elaborates that research methodology is the methods researchers use to reveal, explain, and imagine the phenomenon they are researching.

According to Kreuger and Neuman (2006) there are three research approaches that can be used while conducting research, namely, qualitative, quantitative, and mixed method approaches. This study uses qualitative research methods because it is appropriate to study unquantifiable data expressions such as motivations and behaviour of a research phenomenon (Stebbins, 2001). Qualitative research is an approach that is used for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. This means that qualitative research is an approach that includes “a systematic subjective approach used to describe life experiences and give them meaning” (du Plooy-Cilliers et al., 2014: p. 93). Research methods include creating questions and procedures that develop from the setting of the participants to inductive data analysis that allows specific elements to then be applied to general themes, while concluding with the interpretation of meaning within the data (Creswell& Creswell, 2018). The aim is to gain insight and to explore the depth, richness, and complexity of a phenomenon (Denzin and Lincoln, 2017). As a highly subjective research discipline, qualitative research has been designed to gain an understanding of feelings, impressions, and viewpoints (Gounder, 2012). This approach places emphasis on how people perceive their environment. There are many research methods that fall within qualitative

research that share aims or goals used to comprehend, clarify, and understand social dilemmas faced within societies. The qualitative approach allows for people's experiences, feelings, and behaviours to be better understood. This study uses a qualitative research approach as it aims to uncover the role of social media in health promotion and risk communication during a public health emergency, which makes use of an individual's consumption of social media and the content they interact with.

Research Design

A research design is defined as the universal strategy supporting a research study which offers an general outline of the study. It includes the location of the research study, the research subject selection, methods of data which are used to answer the research questions of the study (MacMillan & Schumacher, 2001). The research design is an element of the methodology that contains the plan that will be used to execute the study. It illustrates in detail when and where the research takes place and the methods of analysis. It includes the approaches involved in the implementation of a research study (Lewis, 2015). However, some scholars contend the effectiveness of a design plan is reliant on the chosen paradigm for the study (Creswell, 2009).

According to Kerlinger (1973: p.300), "a research design is the plan, structure and strategy of investigation conceived so as to obtain answers to research questions." As a research design, exploratory research can be seen as research that is used to explore a new area of knowledge which is not clearly defined, it is therefore, conducted to have a better interpretation of the existing knowledge (Pandey and Pandey, 2015). It aims to examine the make-up of a novel experiences as well as the circumstances that are associated with it. This research design provides information on the reasons and methods behind the investigation of a particular phenomenon (Burns & Bush, 2006). It allows for the exploration of the motives and approaches behind instances that occurred, through making use of personal facts and understanding to obtain significant data on the topic of investigation (Fetters, Curry & Creswell, 2013). This research design assists the researcher in investigating, examining and to obtain an understanding in terms of the effectiveness of social media promotion of health information especially about COVID-19 prevention messaging and misinformation awareness , that aligns with the objective of the study.

Location of Research Study

The location of this study is South Africa, with the online social media platform of Facebook content being a determining factor. The content comprised of the comments posted under the selected Facebook image posts published by The National Department of Health (NDoH). The National Department of Health (NDoH) was chosen due to it being the leading health organisation in South Africa that conveys messages on social media platforms related to health, public health emergencies and more specifically COVID-19. Facebook was chosen due to being the most used social media platform in South Africa and having high levels of engagement (Acumen, 2020). As of July 2021, there were 27 610 000 Facebook users in South Africa which accounted for 46.3% of its population and 2,179,104 people follow the NDoH's Facebook page (Napoleoncat.com, 2021).

Sampling Techniques

Sampling contains the procedure used in selecting a sample within the preferred population (Osuala, 2007). A research study deals with a large population of data that is narrowed down to select the sample of the research study. Maree (2007) identified two types of sampling: probability and non-probability sampling techniques. Probability sampling method techniques were founded on the principle of unpredictability as well as the likelihood theory, while non-probability approaches were founded upon the opinion of the researcher. This study uses non-probability random sampling techniques because the entire unit of analysis or sample population cannot be included in the study, there must be an assortment of participants with specific requirements that was done using non-random sampling techniques.

Non-random sampling can be defined as the process where objects of a particular population have little opportunity of being selected to be part of the sample or the sample cannot be accurately determined, for example the probability of displaying certain characteristics that are aligned with the research questions (Maree, 2007). This study uses the technique of non-probability sampling which is often referred to as judgmental sampling because the selection of the sample is done by the choice of the researcher. Non-probability sampling is a sampling technique in which the researcher selects the sample based on a specific criterion rather than a random selection, where not all the aspects of the population that apply to the research study have an equal chance of being a part of the research study. This is used when it is almost impossible to determine what the entire population is or when it is difficult to access to the

entire population (du Plooy-Cilliers et al., 2014). This study uses purposive sampling technique which is a type of non-probability sampling.

Sampling Method

For this research study, the purposive sampling method was chosen. This sampling technique is used mostly in qualitative research studies to isolate a sample and involves identifying and selecting a sample explicitly related to the research phenomenon being studied (Creswell & Plano Clark, 2011). This method was used to mostly to choose the sample that contained the most information about the research phenomenon being studied (Welman & Kruger, 1999).

Purposive sampling is a non-probability sampling method, and it occurs when elements selected for the sample are chosen by the judgment of the researcher (du Plooy-Cilliers et al., 2014). The sample is specifically chosen to fit the characteristics of the researcher's population parameters while leaving out those that do not share the common characteristics. By using this method, the researcher ensures that every element fits within the population parameters of the research study. In purposive sampling, the sample size or unit of analysis is chosen based on the aims and objectives of the study (Kemper et al., 2003). This method was chosen to align with the answers to the research questions of the research study. Researchers use purposive sampling to choose a particular sample or unit of analysis with the purpose that relevant information about the research phenomenon is obtained (Maxwell, 1996).

Sample or Unit of Analysis selection and timeline

A sample can be defined as a group of people or events that have been selected from the population (De Vos et al., 2011). For this study, social media platforms were purposely chosen as an effective source of information that would help the researcher to obtain information about the phenomenon being researched. Facebook posts by only the NDoH were selected and only posts that are based on COVID-19 information messaging, prevention messaging and misinformation and fake news awareness were selected. The researcher purposively selected posts on COVID-19 prevention messaging and misinformation and fake news awareness, of which the comments would be analysed, that were posted between 27th March and 18th April 2020.

The researcher created codes that emerged after analysing the comments of the selected posts. This implies that the codes created were done deductively. The researcher selected this

sampling method with the purpose that Facebook posts of the NDoH would help to give in-depth information and understanding about the effectiveness of social media platforms in promoting COVID-19 prevention messaging and misinformation and fake news awareness. Within purposive sampling the researcher must be wary of the possible biases from the participants (Seidler, 1974). The researcher is required to know that the research participants may possibly provide untrustworthy data about the phenomenon being researched from sources that are not credible. The researcher believes that the content from the NDoH's Facebook page can be trusted because most of their content goes with pictures from a governmental institution, which allows the researcher to believe that the content and data found on the NDoH's Facebook page is reliable and effective in answering the research questions of the study.

Sampling Timeline

Information from the National Department of Health's Facebook social media page will be retrieved during the level 5 national lockdown in South Africa which was from 27th March 2020 to 18th April 2020. This timeframe was chosen it represents the initial lockdown period due to COVID-19 in South Africa (sacoronavirus.co.za, 2020). The posts on the NDoH Facebook page will offer a more in-depth understanding into how social media platforms are being utilised to encourage audience engagement and interactivity during the first three weeks of level 5 COVID-19 lockdown in South Africa. These posts were selected to align with the rationale and the research questions of the research study.

Sample selection

The selection included three posts, whose comments would be analysed, selected from the National Department of Health's (NDoH) Facebook page between the 27th of March 2020 and the 18th of April 2020. The posts were chosen using purposive sampling that met the inclusion and exclusion criteria of the population sample. The posts contained information based on the rationale of research study, i.e., prevention messaging and misinformation and fake news awareness. The posts were selected within the chosen period of level 5 lockdown, the first 3 weeks of the national lockdown, during which there was an escalated use social media as well as an abundance of misinformation and fake news. The research study will analyse the comments of the three selected posts. While analysing the comments, the researcher will create codes based on the research questions of the research study. The codes will then be grouped into categories and themes.

Inclusion and exclusion criteria

The inclusion and exclusion selection criteria include all the characteristics or features that a research study's sample should include or exclude insofar as they do or do not assist in achieving the expected results of the study (Patino & Ferreira,2018). For this research study the inclusion selection criteria are that the posts, of which the comments would be analysed, had to be posted by the NDoH on their Facebook page and had to be about COVID-19 prevention messaging and raising misinformation and fake news awareness. These posts were selected to align with the research questions and rationale of the study and included prevention messaging and misinformation and fake news awareness. To develop the initial coding categories, some key words or codes collected from the data included *prevention, lockdown, fake news, freedom of speech, religion, prayer, COVID-19 is fake, COVID-19 is real, state of health facilities in South Africa, 5G network, alcohol ban, masks, sanitizer, Chinese virus, ramifications of the lockdown, traditional vs. western medicine, COVID-19 statistics*. These keywords were selected based on their regular presence in the comments that were reviewed and will be further discussed to show their effectiveness to communicate information, prevention strategies and misinformation and fake news awareness related to COVID-19 and how the NDoH, as one of the key health institutions in South Africa, used these words to further encourage audience engagement and interactivity on their social media platforms. Posts that were posted during lockdown level 5, between 27th March and 18th April 2020, by this institution following the COVID-19 level 5 national lockdown in South Africa, were included in the study. Public comments, only comments under the three chosen posts were included. The researcher only analysed the comments under these image posts and writing on those images from the Facebook page of a the NDoH.

Exclusion criteria included all posts that were posted by the NDoH on their Facebook page that were not based on COVID-19 prevention messaging and misinformation and fake news awareness as well as posts that were not posted between the 27th of March and 18th April 2020. Visual posts/content in the form of videos and written posts were also excluded. Those posts were excluded because they were not posted between 27th March and 18 April 2020, other posts were not on COVID-19 prevention messaging and misinformation awareness and the other posts were videos and written posts and did not serve the intentions of the study which is to

analyse only the images posted by the NDoH on COVID-19 prevention messaging and misinformation and fake news awareness.

National Department of Health (South Africa) ✓
April 7, 2020 at 11:15 PM · 🌐 1 of 1

Anyone that creates or spreads fake news about COVID-19 is liable for prosecution

REGULATION 5

“ ” **FAKE NEWS**

Anyone that creates or spreads fake news about COVID-19 is liable for prosecution

WHAT IS A **NATIONAL STATE OF DISASTER?**

cooperative governance & traditional affairs
Department of Cooperative Governance and Traditional Affairs
REPUBLIC OF SOUTH AFRICA

Like Comment Share

8.2K

848 Shares

Image 2 - Post One (07/04/2020)



National Department of Health (South Africa) ✓

April 10, 2020 at 5:34 PM · 🌐

1 of 1

Minister of Health is encouraging everyone to wear a home made mask. The N95 and surgical masks must be worn by frontline health workers

Why must I use a cloth face mask when going out in public?



The main benefit of everyone wearing a face mask is to **reduce the amount of Coronavirus or Influenza virus droplets being coughed up by those with the infection.** Since some persons with the Coronavirus may not have symptoms or may not know they have it, everyone should wear a face mask.



How to use a cloth face mask:

mask must cover the nose and mouth completely. Masks should not be lowered when speaking, coughing or sneezing. Masks should not be repeatedly touched – fidgeting with masks is strongly discouraged. The top and bottom side of the mask should not be touched by hands immediately after removing the face mask. Cloth face masks with warm soapy water and iron will need to have at least 2 face masks so that one is available when the other is being washed.

National Department of Health recommends:

Members of the public should not use N-95 and surgical masks; medical masks remain reserved only for healthcare workers.



Members of the public should not use N-95 and surgical masks; medical masks remain reserved only for healthcare workers.

Hand hygiene and social distancing are the most important strategies to prevent the spread of COVID-19.

National Department of Health recommends that Africans should wear **LOTH** face masks when in public to prevent spread of COVID-19.



Like

Comment

Share

942

434 Shares

Image 3 – Post Two (10/04/2020)



National Department of Health (South Africa) ✓

April 18, 2020 at 6:23 PM · 🌐

1 of 1

Self quarantine is recommended for individuals who have been directly exposed to the virus or who have traveled to areas where there are many people infected in order to prevent the spread.

Learn more about staying safe and healthy at www.sacoronavirus.co.za. Say 'hi' to WhatsApp 0600123556 or call COVID Hotline 0800 029 999

SELF- QUARANTINE, SELF-ISOLATION AND SOCIAL DISTANCING.
What do they mean and how do you fit in during the



QUARANTINE
People who have been exposed to the virus and don't have symptoms.

WHEN YOU'RE QUARANTINED:

-  You're taking your temperature
-  Making sure you don't develop any symptoms of COVID-19
-  Staying away from public places for 14 days

 **BEING IN SELF-QUARANTINE DOESN'T NECESSARILY MEAN YOU HAVE SYMPTOMS OF COVID-19.**
However, it is critical to monitor your health in the 14-day window, check if you develop any symptoms and stay away from public places.



👍 Like

💬 Comment

➦ Share

👍👎❤️ 1.6K

109 Shares

Image 4 - Post Three (18/04/2020)

The above images are the three selected posts from the NDoH's Facebook page between the 27th of March 2020 and the 18th of April 2020. These posts contain prevention messaging, general COVID-19 messaging and misinformation and fake news awareness. Post one is an image indicating the legal repercussions regarding the spread of fake news and had 8.2 thousand interactions and 848 reshares. Post two contained four images, showing the importance of wearing facemasks and had 942 interactions and 434 reshares. This post includes the how to and what the NDoH recommends regarding facemasks. Post three contained an image, showing the importance of social distancing, self-isolation, and self-quarantine and had 1.6 thousand interactions and 109 reshares. The post also includes what should be done when you are quarantined, as well as the difference between self-isolation and quarantine.

Data Collection and Analysis

Data collection is the systematic gathering of information from a selected population for the purpose of conducting scientific research (Abawi, 2013). It is the process of collecting a wide range of information from various sources to get answers for a particular research phenomenon (Starks & Trinidad, 2007). Researchers normally use the following instruments to collect information about an area being researched: participant's observation, interviews, focus groups, documentary sources, archival records, content analysis and face to face interaction (Mouton, 2001; Myers, 2009). Qualitative content analysis was selected to collect and analyse data in order to meet the aims and objectives of this research study. Through the use of qualitative content analysis method, data was collected from the NDoH's social media platforms. The data included the comments under the three posts from the NDoH's Facebook page. The data, in the form of comments, was analysed and grouped into categories and themes which was then discussed to give meaning and understanding to the research study.

Content analysis can be seen as “any technique used to make inferences by systematically and objectively identifying special characteristics of messages” (Holsti, 1968). Content analysis enables the researcher to arrange the text in smaller content-related categories, as it is assumed that when categorised into the same categories, words, and phrases share the same meaning (Cavanagh, 1997). There are two types of content analysis: qualitative content analysis and quantitative content analysis. This study will make use of qualitative content analysis. Qualitative content analysis concentrates on comprehending content (White and Marsh, 2010). Qualitative content analysis aims to find patterns in how concepts are communicated,

understanding the intentions of individuals or groups, revealing differences in communication within different contexts and analysing the consequences of communication content which can either be made up of information flows or audience responses (Krippendorff, 2018). Qualitative content analysis involves the selection of relevant themes and categories from the data set, and it is important for the researcher to consider quotations or observations that go together and which include examples of the same underlying idea or concept (Patton, 1987). Qualitative content analysis can be referred to as a research method that allows a subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes and patterns (Hsieh & Shannon, 2005). These themes and patterns obtained from the data text allows the researcher to better understand the importance and the use of social media for COVID-19 prevention messaging and misinformation and fake news awareness. Qualitative content analysis can be further divided into two types: conceptual and relational content analysis (Wilson, 2011).

Content analysis allows content to be coded for certain words, concepts, and themes, where the researcher makes inferences based on patterns that emerge, where on the other hand relational content analysis builds on conceptual content analysis by exploring the relationships between concepts and themes that surface from the analysed text (Wilson, 2011). Relational analysis is popular because of its flexibility, which can also be a shortcoming when reliability and trustworthiness are a requirement in research (Wilson, 2011). The basic steps of content analysis include defining or developing the research problem, selecting or defining the population, sample or content to be analysed, selecting a research design which includes defining the unit of analysis or analytical categories, gathering the data and developing a set of rules for coding, coding the text according to the rules and finally, analysing the results and drawing conclusions (Lou, 2020; Wilson, 2011).

The fundamental idea of qualitative content analysis is to provide insight into a particular phenomenon being studied through collecting and analysing a data set (Bloor & Wood, 2006). There are two different aspects of content analysis namely, manifest and latent content analysis (Driski & Maschi, 2006; Franzosi, 2004; Krippendorff, 2004). Manifest content analysis is used to collect and analyse visible and explicit content in a research study whereas latent content analysis focuses on analysing implicit and unclear content in a particular area that is being researched (Holsti, 1969). For this research study the researcher makes use of manifest content analysis, where the researcher collected and analysed the textual data from the comments under

the NDoH's Facebook page on COVID-19 prevention messaging and misinformation and fake news awareness. The research study also makes use of conceptual content analysis, which is conducted to establish the existence and frequency of concepts within a text, which can either be explicit or implicit terms or concepts (Lou, 2020).

Researchers classify data to make people aware of how the data has been organised and how it is interpreted (Morse & Field, 1995). In this study, the researcher is reviewing the comments of the posts relating to COVID-19 prevention messaging and misinformation and fake news awareness on the NDoH's Facebook page between the 27th of March and 18th April 2020. According to Silverman (2011) meaning from the collected data provides meaning and understanding that is yet to be clarified during the process of analysis and interpretation.

Qualitative content analysis in general is also used to classify verbal and non-verbal content in each data set for the purpose of selecting themes with similar meanings (Moretti et al., 2011). Text with similar meanings were collected and grouped into themes and analysed. However, Glaser (1987) argued that qualitative content analysis can mislead researchers as it is difficult to organise and navigate themes and patterns if the researcher creates more codes during the process of analysis and that then affects the results of the study. Another limitation of qualitative content analysis is that researchers can miss the context of the study because it is difficult to assess the effectiveness and authenticity of the posted content (Morgan, 1993). Qualitative content analysis also focuses on examining who says what, to whom and with what effects (Boor & Wood, 2006). For this study, the researcher collected and analysed the comments of the selected post on the NDoH's Facebook page on COVID-19 prevention messaging and misinformation and fake news awareness as well as responses of the audience for each post.

Steps taken to conduct a Qualitative Content Analysis.

Step one involves defining the research problem which states that COVID-19 has limited the physical interaction and contact and has escalated the use of virtual, online interaction, in the form of social media platforms. This study uses conceptual content analysis to explore the reasons supporting public engagement of COVID-19 prevention messaging and misinformation that is posted on the National Department of Health (NDoH) Facebook page, between the 27th of March 2020 and the 18th of April 2020 by answering the research questions of the study.

Step two allows the researcher to select the media of choice and the unit of Analysis. The form of media chosen to support this study is social media and more specifically Facebook. This social media platform was chosen due it being the most utilized social media platform, in South Africa, after WhatsApp (StatsSA,2020). Facebook is also the platform with a large degree of user engagement (Acumen, 2020). The sample consists of the comments of three purposively selected posts found on the NDoH Facebook page. The sample timeline is a period of three weeks from the 27th of March 2020 till the 18th of April 2020. This timeline was selected, as it was the beginning of the National level 5 lockdown in South Africa, which subsequently limited physical interaction and encourages the use of virtual or social media platforms. The comments under the three chosen posts contain misinformation or fake news messaging as well as prevention messaging, in terms of the use of mask in public and the difference of self-isolation and quarantine.

Step three involves creating a coding frame, where the researcher used the following coding frame, which was created based on the research questions and rationale of the research study to analyse the collected data by looking for key words or phrases stated below.

CODING SHEET
Source of data: National Department of Health (NDoH) Facebook Page.
Dates: 7th April 2020, 10th April 2020, and 18th April 2020.
Coding Category Item
Freedom of Speech
Religion or prayer
COVID-19 is fake
COVID-19 is real
Inadequate health facilities in South Africa
What is fake news ?
5G network rumours
Lockdown should end
COVID-19 is a Chinese virus
Alcohol
Mask Post – 10 th April 2020

Where are the masks made?
How are the masks made?
N95 masks
No water in rural areas
No facilities in rural areas
No materials to make homemade masks
No money to buy masks
Herbal or Conservative medicine
No updates on COVID-19 stats
Tired of being indoors
No food parcels
Disobeying lockdown regulations
Stay at home !

TABLE 1. – CODING SHEET

Step three includes dividing your material into units of coding, where the units of coding form part of your unit of analysis (the comments under the posts in the form of text data), that can be interpreted in a meaningful way with respect to your categories and that fit within a subcategory of your coding frame.

Justification for Qualitative Content Analysis

Qualitative content analysis allows the researcher to get an in-depth understanding of the phenomenon being researched. By using this method of data collection and analysis, the researcher could collect rich data from the NDoH’s social media (Facebook) page on the communication of COVID-19 prevention messaging and misinformation and fake news awareness. Qualitative content analysis enables the researcher to gain insight and knowledge on how the National Department of Health in South Africa, the leading national department in health issues has promoted COVID-19 prevention messaging and communicates COVID-19 misinformation and fake news awareness. The data collection technique has also been used to assess the validity and the reliability of the collected data set from the sample to make sure that the collected data is accurate and reliable for use (Kyngas *et al.*, 2011; Wilson, 2011).

CHAPTER FIVE

DATA PRESENTATION

Introduction

The purpose of the study was to explore the role of social media within COVID-19 prevention and mis/information discourses on Facebook while highlighting the motivations behind social media use during a pandemic. The study explored the literature surrounding the role of social media and the motivation behind people using social media to acquire health information during a pandemic like COVID-19. The comments under the posted content, by the leading national health institution in South Africa, the National Department of Health (NDoH), were analysed in order to establish how the public responded to and engaged with the initial effects of COVID-19 prevention messaging, general COVID-19 related information and misinformation as well as the motivations resulted in escalated social media use during the COVID-19 pandemic. The main aim of the study is to explore and provide an understanding on ways that the NDoH have utilised Facebook to encourage COVID-19 prevention messages, misinformation and fake news awareness during the level 5 lockdown in South Africa. This chapter presents and discusses the results of the study with respect to the research aims and objectives as well as data that has been collected through content analysis.

Using qualitative content analysis as well as the Uses and Gratifications Theory, the study analysed the comments in response to three Facebook posts posted by the NDoH during the first three weeks of the COVID-19 national lockdown in South Africa, to address these research questions:

- 1) In what ways has NDoH Facebook page been utilised for discussions around COVID-19 prevention messaging and misinformation and fake news awareness in South Africa?
- 2) What were common topics of discussion based on audience reception of the selected NDoH posts?
- 3) In what ways was the Uses and Gratifications Theory applied by the NDoH Facebook page followers during level 5 lockdown in South Africa?

This chapter first, presents the data in terms of the findings of the qualitative content analysis of the comment of the Facebook posts by the NDoH. Second, research questions one and two are addressed. Research question one and two is answered using the comments under the three chosen posts from the NDoH Facebook page, to determine the ways in which the NDoH has

used its Facebook page for discussions around COVID-19 prevention and misinformation and what the common topics of discussion were. Research question three will be answered in the following chapter which will provide a more in-depth qualitative engagement of the content analysis using the constructs of the Uses and Gratification Theory.

Data Presentation

Data analysis consisted of reviewing the 186 comments from the three Facebook posts selected, that contain information regarding the consequences of fake news and misinformation and prevention strategies. These comments of the Facebook posts were analysed to create codes, sub-categories, categories, and themes based on the research questions and objectives of the research study. These include the ways in which the National Department of Health (NDoH) Facebook page has been used for discussions around COVID-19 in South Africa; common topics of discussion based on audience reception of the selected NDoH posts and the ways in which the Uses and Gratifications Theory was applied by the NDoH Facebook page followers during level 5 lockdown in South Africa.

How were codes, categories and themes formed?

Codes were formed after conducting a line-by-line analysis of each comment. Specific key words were then highlighted and extracted to form codes. These codes were then grouped into sub-categories and categories that were then formed into themes and sub-themes (Table 1). These codes, categories and themes were all aligned to the research objectives of the study. The themes were based on the NDoH Facebook posts which included aspects regarding misinformation and fake news as well as prevention strategies such as mask wearing and explaining the difference between self-isolation and quarantine during COVID-19 level 5 lockdown in South Africa.

After extensive data collection and analysis, the researcher had collected six to seven categories that were further narrowed down to three main themes that were aligned with the research questions of the research study. These themes would then be further interpreted in a meaningful way in order to make sense of the data. The comments from the three selected posts were coded and placed into three final themes and is presented in the table below. These themes include *factors that influence the reception of prevention messages during the South African COVID-19 lockdown; effects of the South African COVID-19 lockdown and COVID-19 mis/information.*

Theme 1: Factors that influence the reception of prevention messages during the South African COVID-19 lockdown

The first theme, factors that influence the reception of prevention messages during the South African COVID-19 lockdown, is broken down into categories which include:

- *the influence of COVID-19 preventative apparel on prevention messaging.*
- *the influence of traditional medicine, herbal remedies, and religious interventions on prevention messaging.*
- *the influence of COVID-19 physical prevention methods on prevention messaging and the influence of scientific interventions and western medicine on prevention messaging.*

These categories were further decomposed into sub-categories made up of:

preventative apparel; Preventative home remedies and religious interventions; physical prevention methods, scientific interventions, and western medicine.

These themes, categories and sub-categories were derived from comments under the selected Facebook post displaying the importance of wearing a mask and information surrounding isolation and quarantine, which were directed at highlighting the impact of certain prevention practices that were put into action during the COVID-19 national lockdown.

<i>Theme 1: Factors that influence the reception of prevention messages during the South African COVID-19 lockdown</i>		
Code	Sub – Categories	Categories
• Where/How are masks made?	Preventative apparel	The influence of COVID-19 preventative apparel and physical prevention methods on prevention messaging.
• N95 masks	Preventative apparel	
• Hand sanitizer	Physical prevention methods	
• Social distancing (1 metre)	Physical prevention methods	
• Stay at home!	Physical prevention methods	
• Isolation/quarantine	Physical prevention methods	

• Self-quarantine	Physical prevention methods	
• Herbal vs. Conservative medicine	Preventative home remedies and religious interventions	The influence of traditional medicine, herbal remedies and religious interventions on prevention messaging.
• Ginger, garlic and lemon tonics and vitamin C	Preventative home remedies and religious interventions	
• Religion/ Prayer	Preventative home remedies and religious interventions	
• Medical devices	Scientific interventions	The influence of scientific interventions and western medicine on prevention messaging.
• Vaccine	Western medicine	
• COVID-19 treatment	Western medicine	

TABLE 2 – Codes, Sub-categories and Categories of Theme 1

The following three categories list in the table, which comprises the overarching theme will be discussed below:

Category 1: The influence of COVID-19 preventative apparel and physical prevention methods on prevention messaging.

As South Africa faces a great resource shortage, fighting the COVID-19 pandemic falls on the shoulders of the people. This includes the people of South Africa changing their behaviours to follow the preventative measures set out to combat COVID-19, which consists of wearing face masks, physical distancing and avoiding big gatherings. However, an important factor that affects the outcome of people's health such as behaviour change is greatly impacted by the limited access to credible health information. This limited access to credible and trustworthy health information allows people to be more exposed to the COVID-19 virus as they are less likely to practice the preventative behaviours that are set out to combat the virus (Rossouw and Christian, 2020).

The COVID-19 pandemic brought with it a variety of public health and hygiene measures, that have been stipulated to protect individuals against the virus, with the most obvious one being

the use of face masks. Medical research on the use of face masks as personal protective equipment (PPE) has initially had conflicting views, however later research has showed that the use of face masks were effective in slowing community transmission and gradually it has been recognised as a suitable COVID-19 prevention measure (Chan & Yuen, 2020; World Health Organisation, 2020). However, people aren't perceptive enough when it comes to acknowledging the dangers and negative effects of COVID-19 which can often be seen with preventative measures where people are required to make an investment for their health before they contract the virus such as wearing masks even if you are healthy (Rossouw and Christian, 2020).

Basing their experiences from Asia and Europe, the South African government focused on social distancing, self-isolation, quarantine, COVID-19 testing and lockdown. While these prevention methods have proven to be effective in curbing the COVID-19 virus around the world, the socio-economic realities within South Africa prevent 100% effectiveness. Basic public health prevention strategies such as regular hand washing and social distancing, which have been proven to limit and contain the COVID-19 virus, does not have the same effect in South Africa as approximately 13 per cent of all households are located in informal settlements that are poorly structured, cramped, and at times lack access to running water (Staunton, Swanepoel & Labuschagine, 2020). Physical prevention methods such as self-isolation and quarantine proved to even more ineffective, given that in South Africa, many people share a single bedroom or are homeless. These factors display the influence that the stipulated prevention strategies prove to be impractical and pose as a challenge to majority of the South African population (Staunton, Swanepoel & Labuschagine, 2020).

Evidence of this can be seen from the following comments that were extracted from the data set. *“Everybody is talking about how to hygienically avoid COVID-19 but nobody is teaching us what to do in the event that one is infected, at his/her personal scale at home”* – this quote emphasizes the need for public health and hygiene information in a time when there was little to no information available in order for people to be able to prevent themselves and their families from contracting COVID-19. *“Government should supply the water, musk's and sanitizer,(how)people coming to screen house to house they should come with musk's and sanitizer nd musk to offer per house, Municipal should supply water to community.”* – the quote serves as plea for the government to provide citizens with resources like face masks, hand sanitizer and water, in order to be protected from COVID-19.

Category 2 & 3: The influence of traditional medicine, herbal remedies, and religious interventions on prevention messaging VS. the influence of scientific interventions and western medicine on prevention messages.

COVID-19 brought on limited health information, social interaction, the closure of borders and home confinement. Health workers were used to help limit the spread as well as determine the extent of the spread of the virus by doing tests, implementing quarantines and isolations for those who were infected and treating those who had contracted the virus. These measures were adopted by the South African government as well, however traditional healers appealed to the South African government to include them in these prevention measures. These traditional healers would assist in fighting the spread of the virus in rural areas.

Due to the uncertainty and limited general and medical information surrounding the COVID-19 virus, many people around the world, including South Africa have resorted to traditional herbal healers as well as religious interventions to combat the symptoms and effects of COVID-19. The World Health Organisation has recognised that alternative, traditional medicine has many benefits and with Africa's long rich history in traditional and herbal healing, it plays an important role in providing care for populations in need (WHO,2020). However, these traditional and herbal healing techniques and medicines have not been clinically tried and tested, which means that there is no scientific or concrete evidence of the efficacy of these methods.

Evidence of this can be seen from the following comments where the devotion and trust that the audience has put into their prayer and religion is evident, which will ultimately help them to overcome this pandemic and also help and motivate others to turn to their religion in this trying time of need: *"Remember Christ healed many diseases with word so believe everything will be oh right with the power of God Amen."* As well as the following comment: *"Let's talk to God guys its time for prayer the word of God all ready talk long time ago diseases will come at that time will not get cured cause we done many wrong thing against God 's will so this is our punishment,we have to go back to Jesus Christ we are sorry for everything have mercy for all of us have mercy Almighty God in Jesus name Amen"*

Collectively these comments indicated that many respondents on Facebook were trying to negotiate and understand COVID-19 prevention practices through their own medical, religious, traditional and faith lens. The platform of Facebook enabled a participatory space to communicate and engage.

Theme 2: Effects of the South African national COVID-19 lockdown

The second theme, effects of the South African national COVID-19 lockdown, is broken down into categories which include *experiences of lockdown and consequences of lockdown*. These categories were further decomposed into sub-categories made up of *duration of lockdown, lockdown regulations, repercussions of lockdown and aftermath of lockdown*. These themes, categories and sub-categories were derived from comments under, used to create the sub-categories, themes and sub-themes include, that lockdown should end, the 21-day national lockdown, disobeying lockdown rules, the tiresome nature of being indoors, unemployment, returning to school and work and the alcohol ban.

<i>Theme 2: Effects of the South African national COVID-19 lockdown</i>		
Code	Sub – Categories	Categories
• Lockdown should end	Duration of lockdown	Experiences of Lockdown
• 21-day National Lockdown	Duration of lockdown	
• Disobeying lockdown rules	Lockdown regulations	Experiences of Lockdown
• Alcohol restrictions	Lockdown regulations	
• Tired of being indoors	Repercussions of lockdown	Consequences of Lockdown
• Unemployment	Repercussions of lockdown	
• Return to school and work	Aftermath of lockdown	

TABLE 3 – Codes, sub – categories and categories of Theme 2

The following categories will be discussed, which were derived from the above theme:

Category 1: Experiences of lockdown

In order to curb spread of COVID-19, a national lockdown had to be implemented so that the country could minimise the number of COVID-19 contractions and deaths. The lockdown regulations allowed people to work from home if they could, schools, businesses and places of

worship were closed, only essential services like health care and groceries were available. According to the posts and comments that were analysed, the people of South Africa were not happy with these regulations and restrictions. Children wanted to return to school, people were unable to get groceries due to panic buying.

These comments indicate that a portion of the public have become tired of the lockdown and its regulations while the rest regard the lockdown as necessary in order to stay safe and save lives. This is evident in the following quote that although the public of South Africa agree to the lockdown regulations, however they are also worried about not being able to buy food due not being able to go to work: *"We understand that we have to try to save lives as we still in this lockdown we don't have nothing to eat cz government atleast provided us with just food not much im asking just something to eat u know its very hard when the child com to you n said mama sengilambile n they si nothing we can do plz eve jus samp n bean its fine."*

Other comments highlights the worries and concerns of those who are unable to work or are unemployed due to lockdown. These people worry about what their future is going to look like: *"I'm not working my mother too so what's going to happen to our family if keep on with the lockdown."*

Category 2: Consequences of Lockdown

Along with the experiences of lockdown, came the consequences of the lockdown. These consequences had either a negative or positive effect on the public during the lockdown. The lockdown led to social isolation which effected people all over the world. Some of these effects included mental distress, depression, anxiety as well as feelings associated with the change in lifestyle that we had to endure such as limited physical activity, unhealthy eating habits, inadequate sleep patterns and feelings of loneliness and isolation (Novotný, Gonzalez-Rivas, Kunzová, Skladaná, Pospíšilová, Polcrová, Medina-Inojosa, Lopez-Jimenez, Geda & Stokin; 2020). With religious and social gatherings being prohibited, a comment that emphasises the consequences of the lockdown regulations where people were unable to pray at places of worship which would have gave them a sense of surety during a time of uncertainty: *"What I wanna know is how are we supposed to plea and ask God's forgiveness when we don't go to his house of worship ...?yet again we do go and attend the funerals ...bcz Him alone have the power to stop this disease and heal our people...?"*

Parents suffered from psychological stress due to financial issues and children being at home while children were worried about getting COVID-19, they missed visiting their relatives and attending school. Some of these consequences led to unemployment and children being unable to return to school. Comments highlighted the loss of jobs and being unable to provide for their families as well as kids being disadvantaged by not being able to go to school: *"When will the kids be going back to school. Right now I can't understand when this lockdown will end? The schools were opening when? What about the worker, they are staying at homes, what about their families this lockdown i can't see it comes with the solution at all, plz government solve that thing this covid19 I see it a crc deseas."*

Other comments called out on the fact that although a lockdown was imposed it did not stop the COVID-19 numbers from increasing, all it did was create disadvantages for those who were already disadvantaged: *"No jobs no schools no food for jobs I CN say like thy have been saying machine's will take all gobs cos thy dnt GT tyt, nd for school's he dse not believe in de up rises of men kind nd for food not all of us CN hve like rich ones who donated billions dat a currently helping on private property like hospitals for pple who CN afford mst of us sty in zozo's our fadas nd madas a nt working now de is nothing to eat wat mst we do brake into Bo mifrnds shops ? I can say cut off dis lockdown its no use cos de number keeps going up"*

Theme 3: COVID-19 mis/information

The third theme, COVID-19 mis/information, is broken down into categories which include *fake news, general and mis/information regarding COVID-19 and conspiracy theories*. These categories were further decomposed into sub-categories made up of *discourses around fake news; COVID-19 information; suppression of public voice; information dissemination medium; legitimacy of the COVID-19 virus; contributing factors and origin of the COVID-19 virus*. This theme revolves around the discourses related to information and misinformation surrounding COVID-19.

<i>Theme 3: COVID-19 mis/information</i>		
Code	Sub-Categories	Categories
• What is fake news?	Discourses around fake news	Fake news
• Staggered updating of COVID-19 statistics	COVID-19 information	General and mis/information regarding COVID-19
• Global information	COVID-19 information	
• COVID-19 Information	COVID-19 information	
• COVID-19 information posters	COVID-19 information	
• COVID-19 & pandemics of the past	COVID-19 information	
• Limited information regarding COVID-19	COVID-19 information	
• Corona Virus awareness	COVID-19 information	
• COVID-19 Hotline	COVID-19 information	
• COVID-19 & pandemics of the past	COVID-19 information	
• Freedom of Speech	Suppression of a public voice	General and mis/information regarding COVID-19
• Media	Information dissemination medium	General and mis/information regarding COVID-19
• COVID-19 is fake/real	Legitimacy of the COVID-19 virus	Conspiracy Theories
• 5G network rumours	Contributing factors	
• COVID-19 is a Chinese virus	Origin of the COVID-19 virus	

TABLE 4 – Codes, sub-categories and categories of Theme 3.

The following categories will be discussed, which were derived from the above theme :

- ◇ Fake news
- ◇ General and mis/information regarding COVID-19
- ◇ Conspiracy theories

Category 1: Fake news

Due to the ubiquitous use of social media platforms and the lack of scientific information the spread of misleading information has named the COVID-19 pandemic an 'infodemic' due to the copious amounts of mis/information and fake news. The National Department of Health (NDoH) has warned people of South Africa of the consequences of spreading fake news in a post, however this post was met with negativity to which their followers responded: "🤔🤔

🤔🤔 gud people this thing u call fake news can lead u to the truth of the virus.....but it's a matter of choice. There are some of the news that u are not entitled to know or feed with because u might reveal lot of things ABT what we call government" and "Why are they so consent about fake news, we are humans we believe in facts let them come with valid reasons to contradict the circulating news hawu." These comments show that the people believe that the fake news they receive is a way for the government to control them or governmental secrets will be revealed if they are not fed fake news to cover up what is actually going on.

Other comments touched on the fact that most fake news came from rich first world countries: "What if fake news come from the top, and ours is to respond harshly to the inappropriate information spread by officials, imagine getting people prosecuted for saying a French doctor so and so suggested that Africa been used for testing covid19 virus vaccines, and why he suggested that way, also who did he suggest it to, and the outcome of that meeting is a concern to us Africans. Why did he not suggest Italy or USA, or do they walk on four legs, instead of two."

Category 2: General and mis/information regarding COVID-19

The limited information that was available regarding COVID-19, during its initial stages, provided staggered or delayed dissemination of information which led to more uncertainty. The element of misinformation furthers this sense of uncertainty as people are unaware of what is true and what is not. According to Laurie Garret (2020), although misinformation travels swiftly and more widely via various mediums, an effective strategy against intensifying public fear on the misapprehensions of the science and epidemiology of the COVID-19 virus is by providing correct information that consistently communicates scientific driven information. Facebook users engaging with posts on the National Department of Health's (NDoH) Facebook page have expressed their concerns in the severity of COVID-19 and negative ramifications that fake news and misinformation has on the perception of the virus: "Corona virus is a

serious diseases that we can't play with it no COVID-19 is a srs illness u can make a joke with and u find that u have corona and u will feel ashamed the time u realize it guys stop spreading fake information about COVID-19 pls this is serious."

They have also highlighted the distress that has been cause due to the public's right of freedom of speech being taken away due to the prosecution law passed in the case of disseminating fake news and misinformation: *"As a country we have right of speech so how could u determine my opion as false news what are u hiding behind if I am wrong with my view what a use of prosecution instead of giving fact and prove ur self right stop playing with us Sinibekile as a country ..."*

Other comments have expressed concerns raised by the public in the case of COVID-19 staggered information dissemination based on the number of deaths and number of recovered cases: *"I only hear about the increasing number of people infected with COVID-19 and increasing number of the deaths but there is no number of the recovered, why cz we want to know all the information."*

Another aspect of general and mis/information regarding COVID-19 includes the suppression of public voice, where the people of South Africa believe that their freedom of speech has been taken away because the NDoH post implied that those who spread fake news and misinformation will be persecuted. This can be seen in the following comments:

"As a country we have right of speech so how could u determine my opion as false news what are u hiding behind If I am wrong with my view what a use of prosecution instead of giving fact and prove ur self right stop playing with us Sinibekile as a Country..... 😨"

This comment expresses that the freedom of speech that was fought for in the past is being taken away: *"No freedom of expression because Satan wants his job to be done quietly eishhh ...where is freedom fighters??? Same feathers ..but nothing new even in the Bible was written."*

Another comment highlights the fact that the public can be prosecuted for spreading fake news but they need to weary that the information that they receive is probably from those who are trying to prosecute i.e. the government: *"Yes people can be hold relible if they can't prove what*

they say wich can be challenging because fake news can also come from the same side that is very keen to prosecute while we need to be educated here helllllo!!!!wakey-wakeeeeeeeey!!!@"

This comment questions the 'best' constitution in the world, where the users question whats next: *"What happened to the best constitution in the worldare they taking freedom of speech away from us now.....whats next?"*

These comments show the Facebook users were concerned about the impact of misinformation and the consequences of spreading fake news.

Category 3: Conspiracy theories

While it may seem like misinformation and conspiracy theories have no direct impact on real-world actions, many instances during the COVID-19 pandemic have proven otherwise. Instances in the United Kingdom and Netherlands have shown that there were attacks against telecom workers and many telecom masts were set alight due to the claim that 5G networks were the cause of the COVID-19 virus (Vincent, 2020; Shahsavari, Holur, Wang, Tangherlini, & Roychowdhury, 2020).

The rapid dissemination of information that knows no geographical bounds allows such conspiracy theories to be present in the bottom corner of globe where Facebook users commented on a National Department of Health post regarding the consequences of spreading fake news, where the users stated that: *"No such a thing (No corona) I think president is bored just buy him some toys written □ 5G □mxm that's sukcc fok off maan we want to work guys we know you have cash so let others to manage their own lives!"* and *"People demand answer, some people say while we are in lockdown the government is busy installing 5G network. Why can't they Invest more on finding the cue than this stupid network.....we need some answers. How is this corona formed???? South Africans deserve to know."*

Other comments touched on the fact that people should not get tested for COVID-19 as the tests might already contain the virus and it is part of the government's plan to infect people with COVID-19: *"Don't test covid19 until you are sick and suspecting the symptoms, it is said that China is trying to spread the disease they donated South Africa with millions of mask and those musk where tested positive look out for people trying to test you handing free musk a gloves*

and be careful of those hand sanitizer one was test positive with COVID19 in mpumalanga take care stay away don't trust anyone"

"Is funny that people want to doubt the tests but they using drugs or pills from abroad,needles that they object them at hospitals are from abroad,food that we eating and even drinks even other hospital tests either than Covid 19 tests so how sure are you that those ain't contaminated??stop scarring people from testing because testing is the only way the government can trace and fight this pandemic.please stop being stupid while thinking you clever"

In answering research question one; *in what ways has the National Department of Health (NDoH) utilized its Facebook page for discussions around COVID-19 prevention messaging and misinformation and fake news awareness in South Africa*, the National Department of Health (NDoH), as a leading health institution in South Africa has utilized their Facebook page to introduce and encourage discussions around COVID-19 prevention messaging and misinformation and fake news awareness. This can be seen in the three themes presented above that were derived from the three posts and 186 comments found under those posts. These themes demonstrate the ways in which the NDoH Facebook was used to encourage discussions around the factors that influence COVID-19 prevention messaging, effects of the lockdown and COVID-19 mis/information, through the comments between the Facebook users. By reviewing the comments and the themes derived from them, it is evident that the NDoH, in initiating these discussions, has succeeded in utilizing their Facebook page to encourage discussions around COVID-19 prevention messaging and misinformation and fake news awareness.

Research question two explored *the common topics of discussion based on audience reception of the selected NDoH posts*. After reviewing the data, there were various topics of discussion that were evident within the data and the posts. These common topics are represented in the categories and themes that were derived from engagement and interactivity among the Facebook users in the comments and posts. The common topics of discussion aligned with the rationale of the study that included; the influence of COVID-19 preventative apparel and physical prevention methods on prevention messaging; the influence of traditional medicine, herbal remedies and religious interventions on prevention messaging and the influence of scientific interventions and western medicine on prevention messaging which formed the

theme of the factors that influence COVID-19 prevention messaging, experiences and consequences of lockdown which formed the theme effects of lockdown; as well as, fake news, general and mis/information regarding COVID-19 and conspiracy theories which formed the theme COVID-19 mis/information. These topics were discussed in the thematic explanation above by using the comments.

CHAPTER SIX

ANALYSIS AND FINDINGS

Introduction

The previous chapter presented the collected data while answering research questions one and two through the use of qualitative content analysis. This chapter will present the analysis and findings by using the Uses and Gratifications Theory (UGT) in order to delve into the analysis on how social media was used as a platform for health communication during the COVID-19 national lockdown in South Africa, while answering research question three; in what ways was the Uses and Gratifications Theory applied by the NDoH Facebook page followers during level 5 lockdown in South Africa?

The Uses and Gratifications Theory (UGT) will be used to further explain the reasons behind social media interactivity and use. According to the UGT, the internet identifies an additional three gratification categories apart from the original UGT categories of gratifications. These include content, process, and social gratifications (Stafford et al., 2004). However, social media as a medium, identifies gratification categories that are based on the original constructs of the theory, which include the need for social interaction, entertainment, information-seeking and sharing needs, and desire for reward or remuneration as well as the new three gratifications categories of the internet (Baek, Holton, Harp & Yaschur, 2011; Quan-Hassés & Young, 2010). For the purpose of this study, the gratification categories of social media and the internet will be used simultaneously to analyse the collected data. There is an overlap in the initial gratifications identified within the theory and the new gratifications identified since the advent of the internet. The use of Facebook as a medium fall under the internet gratification categories of process and social gratifications. The information/comments and posts analyzed falls under the content gratification category. While analysing the data, the categories of content, process and social gratifications were evident.

Content gratification

Content gratification involves the desired outcome of internet consumption that includes informational content where audience member motivation is using a media platform, is connected with their attitude and behaviour relating to the medium (Rubin, 1981). Categories and themes derived from the data, that are related to content gratification indicate that the medium was used to gratify the needs of information-seeking and sharing needs, where the

audience interacted with each other via social media platforms to either gain information or share what they knew with those who needed it, which is evident in the following quote:

"Please advise where we can get these posters (printed ones) so we can laminate and put up at shops etc in our community. Thank you". This quote, encourages information sharing and seeking. The users interact with other through this platform thus resulting in an exchange of information.

Other comments that show elements of content gratification include ways in which the people within communities were taking the initiative to learn about the novel Coronavirus: *"I mn apply as homebasic to help community to teach about covid 19 they nevet get a feedback."* They were also eager for programmes to be made available so that they were able to educate themselves and the people around them: *"Please make a program available for us to learn more bout this disease in all languages cause we can't stay under lockdown forever."*

Process gratification

Process gratification allows the media user convenience and ease of use that is associate with words that include, search engines, resources, surfing, technology and websites (Stafford et al, 2004). Through process gratification, traditional media channels are able to merge with the internet to create online platforms like online newspapers. Which was used by the NDoH to deliver the same information that was available in newspapers and on television news, to the public, in a faster and more efficient way. This information included initial COVID-19 statistics and general information. However, due to this rapid dissemination of information via social media channels like Facebook, the scope for an influx of misinformation and fake news is relatively greater than the dissemination of information via traditional media channels. This avenue of misinformation was greatly visible among the comments of the posts.

A Facebook user stated that: *" Is there any right information about the disease right now or because right information lead to cure but seems they are established estimated informed information which lead resechers to go forward of finding the cause of this rubbish, so trust even others if they come with info and just verifies without judging, a crazy man onces tells of seeing war coming and he have save many."*

The Facebook users have also reached out via the comments to find out they can combat this misinformation and fake news pandemic and how they can identify it, *" Can you tell us, then*

how to differentiate between real and fake news ... coz it's in our nature to question things we don't understand. Enlighten us."

Other comments highlighted the fact that people don't have access to technology such as televisions, radios or cell phones: *"The importance of it is that other people don't have televisions so they come here looking for good and best news-and u wrote fake news .those people will believe in those news because this website is for the news of covid 19 "*

Social gratification

Social gratification enables interaction and chatting with friends and others, which is an important aspect of new internet applications such as social media platforms (Krishnatray, Singh, Ragavhan & Varma, 2009). Categories and themes derived from the data, that are related to social gratification indicate that the medium was used to gratify the needs of social interaction, during a time when little or no human/physical contact was possible, which can be seen in the following comment: *"Please guys stay indoors avoid to spread Corona virus.especially to our kids.obey the law"*, which discourages social interaction in the form warning others to stay indoors in order to protect themselves from COVID-19.

The following comment indicates that this Facebook user was worried about the rest of the country while everyone was on lockdown: *"It is going to be hard to beat this Coronavirus because we are selfish. How can you sell musk and gloves yet we saying we fighting the virus for all. Why do want your tenants to pay you rent why the is no income coming to them People who have enough food to survive them long enough till this lockdown is over are still going to add more on what they have while they can give others who have nothing atleast to have something to sustain in the maintime – they have voiced their opinions about the fact that people have to buy masks and gloves and pay rent when they have no income due to the shutdown of the economy during level 5 lockdown.*

Your neighbors are forced to roam up and down while you enough to share with them Instead of coming up with solution to can help the multitude you want thing that will only benefit you as individuals. All we do is to complain instead of adding more value on the little we have in order to survive. People prefer to die with money than to help and share what they have with others until the intelligence atleast find something that can help us all – it goes on further stating that instead of complaining about our circumstances we should try and help those who are less fortunate.

Self studying can't be done only with internet access only , talking with the loved ones around u, young and old you can learn a lot about life than u would have expected....

Problem is most youth measures intelligence with wealthy ,cars house and the kind of job working in , failing to understand that some of greats mind value life more than just items and materials....the wisdom and knowledge guidance one can get from the older can make live long a humble and great life. We must be patient and walk with this slow pace so we can understand and see this thing earlier as when we are in small numbers does when it can be easily spotted ... and everyone is affected everyone..... My fellow people... just like rainfall when it's rain it doesn't favors us all people in constructions husslers and beggers and homeless people are affected hence rain is a source of life to us ... just like this lockdown it is meant to atleast saves lot of lives ... Are we will to take a risk of getting infected by this virus and go home and infect the ones we should be protecting just because we fear we might be killed by hunger.." – this comment further highlights the limited resources that our country already had and how these limited resources have placed people in disadvantaged situations during the level 5 lockdown. the comment also provides the rest of the Facebook users with some words of motivation, guidance and hope in a time when there was so much uncertainty and destruction.

To answer research question three, in what ways was the Uses and Gratifications Theory applied by the NDoH Facebook page followers during level 5 lockdown in South Africa, the themes that were derived from the qualitative content analysis as well as the use of the most recent constructs for gratification that are applied to internet and social media use, content, process, and social gratification were used to examine the ways in which the NDoH's Facebook page has encouraged audience engagement of the posts. The interaction amongst the posts and comments where the Facebook users have reacted and relied to each other's comments, or they liked the posts. Post one had 8.2 thousand interactions and 848 reshares, post two had 942 interactions and 434 reshares and post three had 1.6 thousand interactions and 109 shares. These likes and shares indicate that Facebook users have been interacting and engaging with these posts, which shows that the NDoH has been successful in audience engagement. The themes explained in the data presentation chapter were aligned with both the research study's research questions and objectives as well as the underlying assumptions of the Uses and Gratifications Theory.

Conclusion

This chapter used the UGT constructs of content, process and social gratification were used to answer research question three. The researcher used the posts and comments to examine the ways in which the NDoH Facebook page encouraged audience engagement of the posts regarding prevention strategies and misinformation during the level 5 lockdown in South Africa. The likes and shares of the posts indicated that NDoH Facebook did encourage audience engagement.

CHAPTER SEVEN

CONCLUSIONS

Introduction

The previous chapter presented, analysed, and discussed the findings of this study within the context of the current literature. Conclusions which were drawn from the findings are presented in the current chapter.

Conclusions

This study explored the role of social media in prevention messaging and fake news and misinformation awareness during the COVID-19 level 5 national lockdown in South Africa by analysing the comments under three National Department of Health Facebook posts on prevention messaging and fake news and misinformation awareness. The literature review highlighted the way social media is used in various aspects of life, including the promotion of health information, communication of prevention strategies during a pandemic and combating misinformation in a time where the rapid dissemination of information is not always credible. The review of the existing literature, revealed that media has been used for the promotion of health information for a long time, but more recently social media has taken over and has been used frequently in order to educate the public about public health emergencies and pandemics like COVID-19. It also discussed the discovery of COVID-19 and how it was communicated in the media, particularly the communication of prevention strategies, the various roles of social media in promoting health information and combating misinformation as well as the merits and shortcomings of social media use for health promotion and the pandemic of COVID-19 turned 'infodemic'.

The location of this study is South Africa, with Facebook content being a determining factor. This study uses non-probability random sampling techniques because not all the population or unit of analysis can be included in the study and there must be a selection of participants with specific requirements that was done using non-random sampling techniques. For this study, social media platforms were purposely chosen as an effective source of information that would help the researcher to obtain information about the phenomenon being researched. Facebook posts by only the NDoH were selected and only posts that are based on COVID-19 information messaging, prevention messaging and misinformation and fake news awareness were selected. The researcher purposely selected posts on COVID-19 prevention messaging and

misinformation and fake news awareness that were posted between 27th March and 18th April 2020. Information from the National Department of Health's Facebook social media page will be retrieved during the level 5 national lockdown in South Africa which was from 27th March 2020 to 18th April 2020. This timeframe was chosen it represents the initial lockdown period due to COVID-19 in South Africa. The posts on the NDoH Facebook page offered a more in-depth understanding into how social media platforms are being utilised to encourage audience engagement and interactivity during the first three weeks of level 5 COVID-19 lockdown in South Africa. The selection included three posts selected from the National Department of Health's (NDoH) Facebook page between the 27th of March 2020 and the 18th of April 2020. The posts were chosen using purposive sampling that met the inclusion and exclusion criteria of the population sample that contained information based on the rationale of research study, i.e., prevention messaging and misinformation and fake news awareness. The posts were selected within the chosen period of level 5 lockdown, the first 3 weeks of the national lockdown, during which there was an escalated use social media as well as an abundance of misinformation and fake news.

Data collection methods included using qualitative content analysis was selected to collect and analyse data in order to meet the aims and objectives of this research study. Through the use of qualitative content analysis method, data was collected from the NDoH's social media platforms. The data included the comments under the three posts from the NDoH's Facebook page. The data was analysed and grouped into categories and themes which was then discussed to give meaning and understanding to the research study. Qualitative content analysis allows the researcher to get an in-depth understanding of the phenomenon being researched. By using this method of data collection and analysis, the researcher was able to collect rich data from the NDoH's social media (Facebook) page on the communication of COVID-19 prevention messaging and misinformation and fake news awareness. Qualitative content analysis enabled the researcher to gain insight and knowledge on how the National Department of Health in South Africa, the leading national department in health issues has promoted COVID-19 prevention messaging and communicates COVID-19 misinformation and fake news awareness. The categories and themes derived from the data analysis were used to answer the research questions by applying the theoretical framework of the Uses and Gratifications Theory.

The findings and analysis showed that the more recent constructs of UGT namely process, content and social gratifications could be applied greatly to the analysis of the data in order to

understand the motivations behind social media used during a pandemic and the role that social media plays in disseminating prevention messaging and fake news and misinformation awareness. It allowed people to communicate with each other in a time when there were physical distancing restrictions and to gather and gain information and educate themselves about COVID-19. The above information was used to successfully answer the three research questions of this research study.

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