

**EXPLORING THE INFLUENCE OF SOCIAL MEDIA POSTINGS ON THE
UPTAKE OF THE COVID-19 VACCINE AMONG NAMIBIANS**

**A research project report was submitted in partial fulfillment of the requirements for
the degree of Bachelor of Arts in Media Studies (Honors) to the University of Namibia,
Faculty of Humanities and Social Sciences, Department of Social Sciences**

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2022

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ABSTRACT

The coronavirus (covid-19) mysterious pneumonia started happening in late 2019. The World Health Organization (WHO) declared the coronavirus a global pandemic on,11 March 2020 (Cucinotta,D., & Vanelli,M, 2020).The disease has caused a significant burden on mortality (Nuzhath, T., et al, 2020). Countries began to deploy covid-19 vaccines, as it is the most effective global preventive strategy to end the pandemic, Namibia is no exception.

The vaccine raised serious questions about mortality on social media. Social media in this digital era plays a crucial role as a news source. The influence of social media postings on the uptake of the Covid-19 vaccine is identified as negative, misleading, and constantly spreading misinformation therefore, this results in vaccine hesitancy and resistance among people (Puri et al.). This present study attempts to determine the percentage of people that decided on whether to get vaccinated or not based on social media postings about the vaccine. It also attempts to determine the percentage of males and females that got influenced by the social media postings on the uptake of the Covid-19 vaccine. The researcher employed a quantitative research approach to determine the actual reality regarding the above questions being researched. In a quantitative survey, the researcher made use short answer responses, dichotomous questions, multiple choice answers, paragraphs, and pie charts. This study found that vaccine hesitancy is high due to negative social media postings.

Specific future considerations, such as gatekeeping by social media developers should be done as well as criminalise the spread of false information or unqualified opinions to name a few were some of the recommendations made by the respondents .

Key words: Social media postings, covid-19, vaccine, influence

DEDICATION

This work is dedicated to my sister Isabella Willem (to whom I am immensely grateful for her emotional, financial and physical support she has given me throughout this academic journey).It is also dedicated to all the learners out there that feel like they are not enough. Dear black child your dreams are valid.

ACKNOWLEDGEMENTS

In performing my study, I had to take the help and guidelines of some respected persons, who deserve my greatest gratitude. Firstly, I would like to acknowledge and give my warmest thanks to my supervisor Mrs. Antonette Kakujaha who made this work possible. Throughout her busy schedule she made time to proofread my research chapters. Her guidance and advice carried me through all the stages of writing my project as well as her brilliant comments and suggestions.

Secondly, I would like to extend my deepest gratitude to Mr. Perivi Katja Vivi for the help and support he offered with my chapter 3 of this study.

Thirdly, I would also like to give special thanks to my family for their continuous support and understanding when undertaking my research and writing my project. Your prayers for me are what sustained me this far. I would also like to expand my deepest gratitude to all those who have directly and indirectly guided me in writing this study.

Finally, I would like to thank God Almighty, for letting me through all the difficulties for without his grace and blessings this study would not have been possible. I have experienced your guidance day by day. You are the one who let me finish my degree. I will keep on trusting you for my future.

DECLARATION

I ,Paulina Willem ,hereby declare that this study has been completed entirely by myself and that it has not been submitted, in a whole or part ,in any previous application for a degree in any other institution or higher education.

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Paulina Willem (Student)

Supervisor

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CHAPTER 1: INTRODUCTION

This chapter explores and gives overview background information about Covid-19 and the influence of social media postings on the uptake of the Covid-19 vaccine among Namibians, states the problem, outlines the objectives of the study, significance of the study, limitations of the study, looks at the literature surrounding the topic of the study, methodology approach, research ethics and ends by form of a summary and conclusion of the study.

1.1 Background of the study

The study aimed to explore how social media postings on the uptake of the Covid-19 vaccine influence Namibians. The coronavirus (covid-19) mysterious pneumonia started happening in late 2019. The World Health Organization (WHO) declared the coronavirus a global pandemic on,11 March 2020 (Cucinotta,D., & Vanelli,M, 2020).The disease has caused a significant burden on mortality (Nuzhath, T., et al, 2020). Countries began to deploy covid-19 vaccines, as it is the most effective global preventive strategy to end the pandemic.

Despite major advances in vaccination over the past century, the resurgence of vaccine-preventable illnesses has led the WHO to identify vaccine hesitancy as a major threat to global health (Puri,N.,Coomes,E.,Hagbayan,H., & Gunaratne,K., 2020) They further indicated that vaccine hesitancy may be fueled by health information obtained from a variety of sources, including new media such as the internet and social media platforms.

Information about the vaccine started circulating on different social media platforms. In contrast to traditional media, social media allows individuals to rapidly create and share content globally without editorial interpretation (Puri, N., et al,2020). There is a large amount of low credibility information about the covid-19 vaccine spreading on various social media platforms (DeVerna,M., et.al, 2022).

However, the covid-19 pandemic has been accompanied by an “infodemic”, a term that has been used to refer to the rapid spread of misinformation or fake news through social media platforms and other outlets. The spread of this misinformation may cause people to act inappropriately and jeopardize the efforts of governments and health authorities to manage Covid-19, Inducing both panic and xenophobia (Centers for Disease Control and Prevention,2020). Empowering the public with better critical health literacy in general, and

strengthening community capabilities through social participation and dialogue could be one strategy to combat misinformation about the covid-19 vaccine (Chinn.C., 2011); (Nutbeam,McGill & Premkumar, 2018).

Researchers globally evaluated the effect of social media and online foreign disinformation campaigns on vaccination rates and attitudes towards vaccine safety. Studies demonstrate that vaccine-hesitant groups set a footprint on social media. A large proportion of social media postings are anti-vaccination message (Wilson,L.,& Wiyonge,C, 2020). There are considerable public health concerns raised by anti-vaccination messaging on such platforms and the consequent potential for downstream vaccine hesitancy (Puri et al.,2020).

This current study, against this background, aims to explore how Namibians have been influenced by what they see posted on various social media has influenced their decisions to get vaccinated or not to get vaccinated.

1.2 Orientation of the proposed study

There are a lot of pressing questions surrounding the Covid-19 vaccine. The 2014 Ebola epidemic, in which social media rumors created hostility towards health care workers (Oyeyemi.S.,Gabarron.E., & Wynn.R, 2014) and the continuous anti-vaccine social media posts which seemingly legitimize debates about vaccine safety and may have reduced the vaccination rate (Smith,2017), provide well-established examples of the consequences of the spread of misinformation, which may be mirrored in the Covid-19 pandemic.

According to (Gizmodo, 2020), “a vaccine for the coronavirus that causes covid-19 appears to be our best strategy to ending the current pandemic. Unfortunately, the fastest time frame in which scientists have managed to create any vaccine in history was four years, and there’s already plenty of skepticism surrounding the safety, availability, and effectiveness of any future covid-19 inoculation”. The covid-19 vaccine was discovered in a limited amount of time. The unprecedented rapid development of the covid-19 vaccine has faced vaccine hesitancy, which was partially fueled by the misinformation and conspiracy theories propagated by anti-vaccine groups on social media (Kalichman, Eaton, Earnshaw, & Natalie Brousseau,2022). In a research conducted by (Wilson,L.,& Wiyonge,C, 2020) about ‘social media and vaccine hesitancy’ the findings concluded that over the year, there was a 15% increase in negative tweets about vaccines.

What kind of side effects will the covid-19 vaccine have? Does the vaccine stop transmission of the virus? And how long does immunity last? Is the vaccine safe for pregnant women and children? These are some of the questions that caused some controversies on social media postings about the covid-19 vaccine (May, 2021). This phenomenon has given rise to the researcher of this paper to take up this research.

1.3 Statement of the problem

The influence of social media postings on the uptake of the Covid-19 vaccine is identified as negative, misleading, and constantly spreading misinformation therefore, this results in vaccine hesitancy and resistance among people (Puri et al.). This present study attempts to determine the percentage of people that decided on whether to get vaccinated or not based on social media postings about the vaccine. It also attempts to determine the percentage of males and females that got influenced by the social media postings on the uptake of the Covid-19 vaccine.

The purpose of the study is to determine whether social media postings on the uptake of the covid-19 vaccine influenced Namibians in a positive, negative, or neutral manner. The study also aims to explore if the level of an individual's education plays a role in the impact of these social media postings about the covid-19 vaccine on Namibians.

1.4 Objectives of the Research

- To evaluate social attitudes to the Covid-19 vaccine in town and informal settlements areas, due to social media postings
- To reflect how social media postings on various social media platforms influences the uptake of the covid-19 vaccine
- Explore how gender may influence the impact of social media postings on the uptake of the Covid-19 vaccine
- Evaluate how the education level of individuals may influence the uptake of the Covid-19 vaccine

1.5 Significance of the study

The study is based on recent happenings. Social media postings about the vaccine can affect an individual's perception either in a negative, positive or neutral way. It is hoped that this study will change the perceptions of people to always fact-check social media postings and that they do research in depth about and controversies that might be spreading. The study focuses on what is happening currently. In addition, find possible solutions for reference which can be used by future researchers.

1.6 Limitation of the study

The study focused only social media posts by the Ministry of Health and Social Services. Social media postings might be erased in some cases, making it difficult to acquire clear documentation of such postings for use in the study. People with varying levels of education may misinterpret information from social media postings, this can have an impact on the study's results. The study will concentrate on people of the age range 18-25,26-35 and 36 years and above.

1.7 Literature Review and the Theoretical and /or conceptual framework

The Persuasive and Social Influence theory by Carl I. Hovland and Kelman inspired by the situational, narrative and conspiracy theories would guide this study. Persuasive theory and social influence theory are complementary.

Persuasion is a basic human skill that affects nearly every element of social interaction. People try to influence the thoughts and behaviors of others in interpersonal relationships, mass media, politics, economics, and even international relations. Persuasion usually is concerned with changing the attitudes and consequently (under specific conditions) the behavior of people in a context of relative freedom (for detailed reviews see Crano & Prislin,2008; Dillard and Shen,2012; O'Keefe, 2002; Perloff,2010).The Persuasion research focuses on how people learn to enjoy their social surroundings, maintain a balance between attitudes and behaviors, predict behaviors from attitudes, and think about messages intended to affect them more or less closely. This chapter introduces a number of persuasion approaches that have helped us better understand the processes and elements that influence persuasion over time. The persuasion approaches are namely: the learning; the consistency; the self-perception; the attitudes and behavior approach.

The Social Influence refers to the process whereby “a person changes his (her) behavior as a result of induction by another person or group (the social influence agent)” (Kelman, H.C, 1974). It has an adaptive and bidirectional nature so social influence can be exerted by an opinion leader on opinion seekers (Flynn, L.R.,Goldsmith,R.E., & Eastman,J.K, 1996), as well as being exerted on the opinion leader him (her) self (Sridhir, S and Srinivasan,R, 2012). Social influence can have a powerful effect in online communities. Social Influence Theory is characterized by three constituents: identification, internalization, and compliance (Kelman, 1961). These are sometimes referred to as social identity, group norm and subjective norm, respectfully (Zhou, 2011).

The situational theory states that large groups of people can be divided into four publics based on their recognition and involvement about an issue. The theory further helps explain why certain publics are active or passive in their search for information about a topic. It also helps explain a publics’ behavior after they process information. According to (Hamilton, 1992) Grunig’s situational theory conducted a survey during the 1990 governor’s race in Kansas. The outcome of the survey was correct as the theory successfully predicted the outcomes of communication. In contrast to previous studies that used the situational theory, this study discovered a strong relationship between situational variables and standard demographic characteristics such as age, education, and income, implying that segmentation procedures that include both situational variables and media demographics could be used.

“A narrative is a semiotic depiction of a sequence of events that are chronologically and causally linked, Films, dramas, comics, newsreels and treatises are all narratives in this broad meaning. As a result, narratives can be found utilizing a wide range of semiotic media, including written or spoken language, images, gestures and acting”, (Landa, 2005).

There are a lot of controversies surrounding the covid-19 vaccine. “Rumors and conspiracy theories thrive in environments of low confidence and low trust. Consequently, it is not surprising that one’s related to the covid-19 pandemic are proliferating given the lack of scientific consensus on the virus’s spread and containment ,or on the long term social and economic ramifications of the Pandemic”, (Shahsavari, 2020) .Among the stories currently circulating in United States focused social media forums are ones suggesting that the 5G telecommunication network activates the virus, that the pandemic is a hoax perpetrated by global cabal ,that the virus is a bio-weapon released deliberately by Chinese ,or Bill Gates is

using it as a cover to launch a broad vaccination program to facilitate a global surveillance regime, (Shahsavari, 2020) concluded.

According to (Yohanan., E et.al,2022), “the covid-19 vaccination campaign led to hesitancy, deferment and un-resolving resistance of certain groups or individuals worldwide. The reasons for these reactions include distrust in the covid-19 vaccine that was developed rapidly, lack of trust in governing entities and unrealistic optimism. Each of these reasons may involve claims of secret intentions or conspiracy theories”. According to researchers (Sharma,K.,Zhang,Y., & Lui,Y, 2021), vaccine hesitancy and misinformation on social media has increased concerns about covid-19 vaccine uptake required to achieve herd immunity and overcome the pandemic. The researchers aimed to investigate misinformation and conspiracy campaigns and their characteristic behaviors.

A similar study was conducted on the social media use and influenza vaccine uptake among White and African adults by (Ahmed, 2018). According to the Centers for Disease Control and Prevention’s 2016 data, influenza vaccination rates among adults over 18 years in the United States remain low, at 41%. This cross-sectional study sought to examine the relationship between social media postings on the influenza vaccine uptake among a sample of White and African Americans. (Ahmed et.al,2018) used the logic regression test and found out that Twitter and Facebook users for health information were more likely to be vaccinated in comparison to users who do not use Twitter or Facebook as a source of health information. These findings have implications for the use of social media platforms to communicate information about influenza vaccines and encourage users to get vaccinated annually.

According to (Clemente, 2021), social media postings spread misinformation. He added that the current pandemic is no exception as it has the potential for the spread of false news through social media. On top of that information is tailored to influence individual viewpoints. Similar studies have been carried out. This includes the Human Papilloma Virus (HPV), Ebola vaccines. A study was carried out based on the HPV vaccine. Conversely, the scholars found out that there is a broad agreement that social media postings on the HPV vaccine are positive, misleading, and are presented inconsistently over time (Chen,L.,LinKg,Q.,Cao,T.,& Han,K, 2020). In the study about the use of social media postings on the uptake of the Ebola vaccine. Researchers (Sell, Hosangadi & Trotochaud, 2020) concluded that misinformation has an

impact on public beliefs and it is a growing problem in the public health field which will affect all types of disease events. The purpose of this study was to describe the content of Ebola-related tweets with a specific focus on misinformation, political content, health-related content, risk framing, and rumors. This research was based on a particular social media platform, in this case, it being Twitter.

1.8 Methodology

The researcher will employ a quantitative research approach to determine the actual reality regarding the above questions being researched. In a quantitative survey, the researcher will use short answer responses, dichotomous questions, multiple choice answers, paragraphs, check boxes, rating scale and rank order scaling (Dr. Pandey, 2015).

During data collection, the quantitative method would be approached by using the survey method. The respondents would have to answer to close and open-ended questions. Information is collected by asking people questions. (Enanoria, W., 2005) defines a survey as a systematic method of gathering information from (a sample of) individuals to describe the attributes of the larger population of which the individuals are members. Through Surveying the researcher can reach a large number of respondents and generate standardized quantifiable data as well as allow for comparisons (O'Leary, 2014). The researcher will gather information through written surveys (questionnaires), verbal surveys (interviews), and "Google Forms" for online surveying.

The population will consist of 200 people Groot-aub residents and those that are visiting at the time of study. The population will also be broken down into either gender, based on their willingness to participate. The researcher will make use of the purposive sampling method. The purposive sample will help the researcher make the most out of a small population of interest and arrive at a valuable research outcome.

For research instruments the researcher made use of questionnaires (both written and online). Both questionnaire types will comprise closed-ended questions to generate quantitative data. The medium through which the survey will be administered will be face-to-face questionnaires, online questionnaires, and telephone questionnaires. 'Surveying' is the process by which the researcher collects data through a questionnaire (O'Leary, 2014). A 'questionnaire' is the instrument for collecting the primary data (Cohen, 2011). Questionnaires have many uses, most

notably to discover what the masses are thinking. These include market research, political polling, customer service feedback, evaluations, opinion polls, and social research (O'Leary, 2014). O'Leary (2014) offers further instructions to attach a cover letter that describes who you are, the aim of the project, and assurances of confidentiality. The questionnaire will also consist of demographic questions. For online surveying, the researcher will make use of "Survey Monkey". (Bell, J., Waters, S., & Ebooks Corporation, 2014) mentioned "Survey Monkey" as the most popular and versatile survey tool available. Questionnaires will allow the researcher to generate data specific to their research and offer insights that might otherwise be unavailable.

For the researcher to evaluate the quality of the study, she will use the concepts, reliability, and validity. Reliability, the researcher will look for similar studies that were previously carried out and compare the findings with theirs. To do a clear comparison, the researcher must have all sources at their disposal. If the responses of all studies are consistently archived by using the same research methods, the researcher will conclude that the study is reliable.

When it comes to validity, the researcher will ensure validity by making sure that the method and measurement technique are of high quality and targeted to measure exactly what she wants to know.

In addition, seek approval from the UNAM communications department to release a notice which states that the final year media students will be carrying out their research, hence they should be on the lookout and participate. The notice issued by the communications department will serve to inform students beforehand so that they are not afraid to share information.

"Data analysis is the vehicle used to generate and validate interpretations, formulate inferences, and draw conclusions," as stated by Sherman (2007, p.147). The researcher will make use of the quantitative analysis, which will then be manipulated into statistical analysis. Quantitative statistical procedures will be used to analyse data obtained through the survey. To perform and analyze the data collected the researcher will use the Statistical Package for the Social Sciences (SPSS) tool. The SPSS tool will help the researcher to analyse and mine text data so that he/she can get more out of the survey project. Descriptive Statistics features of the software involving frequencies and cross-tabulations will be used and findings will be presented using tables, bars, and pie charts. Descriptive analysis will be used to present data from key interviews. The researcher will make use of the SPSS tool because it is easy to use.

1.9 Research ethics

Firstly, the researcher will obtain an ethical clearance letter from the University of Namibia before embarking on the project. The research must keep in mind to look presentable when carrying out the actual research. This will serve as proof that the researcher is from the University, hence participants will feel free to share their information with the researcher.

The informed consent-The cornerstone of ethical research is ‘informed consent (Denzin, 2011). The term consists of two important elements, with each requiring careful consideration, that is ‘informed’ and ‘consent’.

Participants will be fully informed on the following:

- Who the researcher is,
- Statement of what the research involves and the purpose of research,
- What data will be collected from participants?
- What level of commitment (honesty) is required from them?
- Participation is Voluntarily -right to withdraw at any time without Penalty
- Right to confidentiality/Risks and benefits
- Who to contact for inquiry purposes?

In addition, participants should provide explicit, active, signed consent to take part in the research. All of the above-mentioned are fundamentally important and will be typed in an information sheet accompanied by the consent form. The document will be short, well worded (1.5-2 pages), using a writing style tailored for the participants (avoiding the use of complex terminologies). If the information sheet and consent form are unclear, it will result in a weak consent agreement, which may compromise the quality of data collected due to mistrust (Miles, M., B & Huberman, A.M., 1994) and not provide good protection for the participant or the researcher.

Participant anonymity and confidentiality/Risk of harm-Participants will voluntarily take part in the study. It is reasonable for anyone taking part in the study to expect a certain level of anonymity; hence the researcher will ensure privacy and confidentiality. The identity of participants must be kept confidential or anonymous and the assurances extend beyond protecting their names to also include the avoidance of using self-identifying statements and information.

1.10 Summary

The topic of the study serves to educate today's generation. The researcher of this study hopes that the literature and findings of this study would be helpful in making people aware that the influence of social media postings on the covid-19 vaccine can be negative and misleading. The next chapter will look at the Persuasive and Social Influence Theory in detail.

Chapter 2

Literature review and Theoretical Framework

2.1 Introduction

The purpose of this literature review is to provide a general overview of the covid-19 vaccine as well as social media postings on the uptake of the Covid-19 vaccine, what social media is and how it is used, evolution of social media, how social media attributes affect the way people interact online, an overview on the situational theory that the current study is based on. Lastly, the participation in social media by health care professionals (HCP), and the pros and cons of using social media as a news source, considering their potential social and economic impact are also discussed in this chapter.

2.2 Overview of Covid-19 in Namibia and the use of social media

Since late 2019, the ongoing coronavirus pandemic has readily swept across the globe. Covid-19 is caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which was first identified in Wuhan, China in December 2019. By 11 March 2020, the WHO had characterised the spread of Covid-19 as a pandemic (WHO, Director-General's opening remarks at the media briefing on Covid-19, 2020).

There have been more than 12.9 million cases and over 560,000 deaths globally, with over 312,000 cases and 43,000 deaths in the United Kingdom (as of July 2020; Center for Systems Science & Engineering at John Hopkins University, 2020). Despite the fact that current methods

such as social distancing, quarantine and isolation, contact tracing have been effective in suppressing the disease, when these strategies are loosened, transmission is likely to resume (Ferguson et al.,2020). Thus, the development of a covid-19 vaccine is a global priority as a longer-term solution to overcoming this pandemic (Yamey et al.,2020).

On March 13,2020, the MoHSS reported the first two cases of covid-19 disease in Namibia which were identified among international travellers who travelled to the country.

According to a conceptual framework for Covid-19 by (WHO, Rapid adaptation of HIV treatment programs in response to covid-19-namibia, 2020)technical group, in response to the covid-19 outbreak, WHO encouraged governments to immediately and collectively scale up the necessary actions to:

1. Prepare and be ready
2. Detect and test all suspect cases
3. Prevent, Suppress and Interrupt transmissions
4. Provide safe and effective clinical care
5. Share knowledge and develop and distribute new diagnostics, drugs and vaccines.

On March 17, Namibia's president declared a state of emergency, which introduced measures such as closing of all international borders, enactment of regional travel restrictions, closing of schools, suspension of gatherings, and implementation of physical distancing measures across the country. Namibia has recorded 12,326 laboratory confirmed covid-19 cases and 131 covid-19-related deaths as of October 19, 2020. As the USA President's Emergency Plan for AIDS Relief (PEPFAR), the Centres for Disease Control and Prevention (CDC) provided technical assistance to the MoHSS for rapid coordination of the national human immunodeficiency virus (HIV) treatment programme with the national covid-19 response through its Namibian country office.

MoHSS held seven communication sessions with 760 sites and 2,068 health care providers utilising the Project ECHO platform from March 17 to April 21. Because the ECHO platform is used by all the country's major district hospitals and high-volume health care institutions, timely communication and telemonitoring across all regions was possible despite travel limitations.

According to the World Health Organisation statistics, Namibia has 160,640 confirmed cases of Covid-19 with 4,031 deaths recorded as from 3 January 2020 to 24 May 2022. As of 24 May 2022, a total of 834,756 vaccine doses have been administered. According to the Namibian Statistics Agency, Namibia has a population of 2.541 million as of 2020. From a population of 2.541 million only 834,756 people received the vaccine dose to date, it is evident that a majority of the population did not get vaccinated.

2.3 The Persuasive and Social Influence Theoretical Framework

The chapter discusses some persuasion and social influence theories that, over time, have aided in our understanding of the procedures and elements that influence persuasion.

The theories of persuasion are as follows:

The learning approach -the learning approach advanced the idea that to be influenced, the persuasion target needed first to understand and learn the ideas conveyed by the message. Influence in this context was concerned mainly with the way attitudes were developed and formed (Gardikios, A & Crano, W.D, 2019). According to this approach attitudes are non-observable responses that are learned and thus amendable to reinforcement process (Allport, 1934).

The consistency approach -the consistency approach is basically made up of various theoretical interpretations that are all founded on the fundamental presumption that people like to associate their beliefs, attitudes, behaviours, and interpersonal relationships in coherent and harmonious ways (Abelson et al., 1968). A prominent theory among these accounts, cognitive dissonance (e.g. Festinger, 1957) focuses on the associations among a person's cognitive elements (e.g., attitudes, beliefs) and the degree to which these cognitions are consonant with each other and with attitudinally implicated behaviours.

The self-perception approach-Bem's (1972) self-perception theory put out an alternate explanation of attitude change following attitude-behaviour incongruence. This explanation claims that the process of self-observation, rather than the psychological distress associated with inconsistency, causes attitude adjustment. Similar to how they do when they watch their own conduct and extrapolate their attitudes. This is particularly true if the conduct cannot be

explained by any other environmental stimuli. As a purely cognitive theory, self-perception theory was unable to predict results based on arousal that was, in principle, produced in response to dissonance.

Attitudes and behaviour- In the end, persuasion is about persuading someone to change their behaviour, and this focus is evident in several studies that deal with decisions like making a purchase, casting a ballot for a candidate, having safe sex, or operating a vehicle sober. It is crucial to evaluate the variables that result in attitude-behaviour consistency. A lot of research has been done on the factors that promote or impede the consistency between attitudes and behaviours since attitudes can influence or predict a person's conduct. *The theory of reasoned action* of Fishbein and Ajzen (1975) focuses on voluntary actions (e.g., voting for a candidate, or buying a product and proposes that best predictor of voluntary action is the intention to perform that behaviour. Voting for a particular candidate is desired because I believe peoples conditions, for example. Intention is predicted by attitudes towards the specific behaviour and by subjective norms that concern this behaviour, that is, what other people whose opinions are valued think about it (for example "my family and friends expect me to vote for this candidate"). The model provides more information on the variables that affect personal (attitudes) and social (norms) components. A person's attitudes are influenced by their behaviour-related beliefs (such as "the candidate publicly supports pro environmental policies," which I approve of), as well as expectation-related beliefs (such as "the candidate will be able to implement these policies").

The degree to which a person is driven to comply with significant others' wishes (e.g., "I would like to follow what my family wants me to do on this subject") and views about what significant others think about the conduct (e.g., "my family wants me to vote for the candidate") determine norms.

2.4 What is social media? And how is it utilized by Namibians?

The term "social media" is broad and constantly evolving. In addition, the use of social media is prevalent across all ages and professional and is pervasive around the world. Despite the fact that scholars assume an inherent grasp of social media based on current technology, there is no widely agreed functional or theoretical definition of social media within communication studies (Carr,C., & Hayes,R., 2015).

Cogent theorizing about the usage and effects of social media has been limited due to this lack of understanding (Carr,C., & Hayes,R., 2015). Social media is defined by various authors; hence it has many definitions to it. (Kaplan and Haenlein 2010, p,61) defined social media “as a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content”. Indeed, several have successfully navigated the social media ecosystem, demonstrating the applications’ ability to produce spectacular results.

Web 2.0 is defined by (Lipika, 2016) as internet applications which allow sharing and collaboration opportunities to people and help them to express themselves online.

According to a publication revised ,20 November 2012 on (Dewing, 2010), just as the internet has changed the way Canadians buy music, organise vacations, and research schools’ projects, it has also affected how they interact socially. Through the use of social media, people can exchange photos and videos, share news stories, post their thoughts on blogs, and participate in online discussions. Social media also allow individuals, companies, organisations, governments, and parliamentarians to interact with large numbers of people.

According to (Dewing, 2010), the phrase "social media" refers to a variety of web-based and mobile services that allow users to engage in online conversations, contribute user-generated content, and join online communities. The Internet services frequently connected with social media (also known as "Web 2.0") include the following:

Blogs- A blog, which stands for "web log," is an online journal in which pages are shown in reverse chronological order. Websites such as WordPress, Tumblr, and Blogger offer free blog hosting.

Wikis-A wiki is defined as "a collaborative website where any member can edit or create new pages using her Web browser". Wikipedia is a well-known example, a free online encyclopaedia that uses wiki technology.

Social media bookmarking -social media users organize and share their bookmarks on social bookmarking sites. Exchange website links Reddit, StumbleUpon, and Digg are among examples.

Social networking websites- These are "web-based services that" have been defined. Social networking websites allow people to (1) create a public or semi-public profile within a defined area (2) generate a list of other users with whom they have a connection, (3) Browse their list

of connections as well as those made by others inside the framework. LinkedIn and Twitter are two of the most popular in Canada.

Status-update services- Status-update systems, often known as microblogging services, such as Twitter, allow people to post brief updates about persons or events, and to see what others have created.

Virtual world content-These sites offer game-like virtual environments in which users interact. One example is the imaginary world constructed in Second life, in which users create avatars (a virtual representation of the user) that interact with others.

Media-sharing sites-These sites allow users to post videos or photographs, Popular examples include YouTube, Pinterest and Instagram.

(Dewing, 2010) revised on 20 November 2012, concluded that the categories mentioned above overlap to some degree. Twitter, for example, is a social network site as well as a status-update service. Likewise, users of the social network site Facebook can share photographs, and users of the media-sharing site Pinterest can follow other people.

2.5 The Evolution of social media

The human desire to communicate, as well as developments in digital technology, have spurred the evolution of social media. It's a tale about forging and fostering intimate bonds at a large scale. Social media has transformed in less than a generation from direct electronic information exchange to virtual gathering place, shopping platform, and critical 21st-century marketing (Shah, 2016). On May 24, 1844, a stream of electronic dots and dashes punched out by hand on a telegraph machine marked the start of social media.

Samuel Morse grasped the historic implications of his scientific feat when he sent the first electronic communication from Baltimore to Washington D.C. "What hath God wrought?" he wrote. A recent article in *The Washington Post*, "Before Twitter and Facebook, There Was Morse Code: Remembering Social Media's True Inventor," details the history and relevance of Morse code, complete with early versions of today's "OMG" and "LOL."

(Shah, 2016) gave an overview of the most prominent social media networks of 2020 as follows:

Facebook-launched in 2004 by Harvard student Mark Zuckerberg, it has nearly 1.7 billion users, including 69% of U.S. adults, according to Pew Research.

Twitter-founded in 2006 by Jack Dorsey, Evan Williams, Biz Stone, and others as a microblogging site, by 2020, 22% of U.S. adults were on Twitter.

Instagram-founded in 2010 by Stanford graduate Kevin Systrom as a photo-sharing site and purchased Facebook in 2012, Instagram has more than 1 billion users worldwide.

Pinterest-founded in 2010 by iPhone app developer Ben Silbermann as a visual “pin board,” Pinterest became a publicly traded company in 2019 and has more than 335 million active monthly users.

Snapchat-founded in 2011 by a trio of Stanford students, Evan Spiegel, Reggie Brown, and Bobby Murphy, this video-sharing service introduced the concept of “stories,” or serialized short videos, and “filters,” run for informative digital effects, often based on location.

TikTok-founded in 2016 by Chinese tech company Byte Dance, this short-form video-sharing site was merged with the U.S.-based mobile app Musical.ly in 2018 and became popular with young American teens and young adults. As of early 2020, it had more than 800 million users worldwide.

“As the ability to reach consumers expanded thanks to social media, marketing professionals quickly adapted. Social media’s evolution provided measurement tools that gave marketing professionals unprecedented access to valuable, actionable data about consumers’ demographic, buying habits, and more”, (Shah, 2016). With marketers no longer limited to traditional forms of media namely television, radio, print, mail, billboards, magazines, etc. The social media industry was born. How did it begin? How has social media affected the lives of billions of people? How have businesses adapted to the digital consumer lifestyle? What’s next for social media? It’s all part of the story of social media’s evolution.

In the late 1990’s, as broadband Internet became more popular, websites that allowed users to create and upload content began to appear. The first social network site (SixDegrees.com) appeared in 1997. From 2002 onward, a large number of social network sites were launched. Some such as Friendster, enjoyed a surge of popularity, only to fade. Others developed niche communities: Myspace, for example, appealed to teenaged music aficionados (Dewing, 2010).

“By the late 2000s, social media had gained widespread acceptance and some services gained huge numbers of users. For example, in November 2012, Facebook announced that it had 1 billion users worldwide, of whom 18 million were in Canada. In July 2012 Twitter had an estimated 517 million users, of whom 10 million were in Canada”, (Dewing, 2010). A variety of factors have led to the rapid increase in social media usage. These include technology advancements such as expanded broadband access, improved software tools, and the creation of more innovative products. Sociocultural variables such as the increased adoption of powerful computers and smart devices; younger age groups using social media; and economic concerns such as the rising cost of living, computer and software affordability, as well as a growing business interest in social media portals.

The evolving economic model, as well as breakthroughs in storytelling technology, will almost probably determine what occurs next in social media. How will Facebook, Twitter, TikTok and other major platforms make money? How will businesses communicate their messages and grow audiences through social media? The answers to these issues will define the next step in the growth of social media.

2.6 Participation in social media by health professionals

According to (Shu K. L., 2017) social media for news consumption is a double-edged sword. On the other hand, its low cost, easy access, and rapid dissemination of information lead people to seek out and consume news from social media.

“For the general population, social media and electronic news media activity are essential sources of information. However, there is a paucity of research on the use of Twitter and other electronic news outlets during major events like the Ebola virus outbreak.” (Shu K. L., 2017).

According to (Ventola, 2014) many social media tools are available for health care professionals (HCPs), including social networking platforms blogs, microblogs, wikis, media-sharing sites, virtual reality and gaming environments. These tools can be used to improve or enhance professional networking and education, organisational promotion, patient care, patient education and public health programs. Social media provides Health Care Professionals (HCPs) tools to share information, to debate health care issues, to promote health behaviours, to engage with the public, and to educate and interact with patients, caregivers, students, and colleagues.

“HCPs can use social media to improve health outcomes, build a professional network, raise personal awareness of news and discoveries, inspire patients, and provide community health information. Physicians frequently participate in online forums to read news stories, listen to experts, research medical breakthroughs, counsel peers about patient difficulties, and network. They can discuss practise management difficulties, make referrals, distribute their findings, sell their practices, or participate in health advocacy”, (Ventola, 2014).

2.7 The pros and cons of using social media as a news source

Social media has become a popular medium for people to consume news (Shu K. L., 2018). Although social media is infiltrating more and more of our daily lives, relying on it poses risks as well as rewards. On the negative impacts of social media (Shu K. L., 2017) stated that it enables the wide spread of fake news, low quality of news with intentionally false information. The widespread dissemination of fake news has the potential to have tremendously detrimental consequences for both individuals and society. As a result, detecting false news on social media has recently been an emergent study topic that is gaining a lot of interest. Fake news identification on social media has unique characteristics and obstacles that render classic news media detection algorithms ineffective or inapplicable.

According to (Shu K. L., 2017) fake news is purposely written to lead readers to believe false information, making it difficult and nontrivial to detect based on news content alone. As a result, we need to include auxiliary information, such as user social engagements on social media, to aid in our decisions. Secondly, utilising this auxiliary data is difficult in and of itself, as consumers’ social interactions with fake news generate large, incomplete, unstructured, and noisy data.

(Cerrone,2016) an intern at Buchanan Public Relations simplified the negative aspects of using social media as a news source as follows:

Perspective-While social media allows us to create our own customised news streams, it is a finite resource. It is quite easy to separate ourselves from news issues, viewpoints, and perspectives that we do not agree with by simply selecting the ones that are most comfortable for us. As a result, it’s critical to prevent this short-sightedness and allow ourselves to be exposed to a larger range of news on social media sites.

Abbreviation-It's also important to remember that most of the news we see on social media is a condensed version of the whole story. A comprehensive explanation of a complicated issue cannot be contained in 140 characters on Twitter or even in a Facebook post. This means that in order to be truly well-informed, the news we discover on these platforms requires extra inquiry and reading.

Interference-Although many of us use social media to acquire or news, it is only one of the platforms' numerous uses. To share our lives experiences with others, we tweet, post, Instagram, and Snapchat. As a result, it's critical to understand that using social media as a news source can expose you to a lot of personal "interference" or "noise" that you wouldn't find in more traditional news sources.

Reliability-We may crowdsource our news on social media, acquiring content from both professional and personal sources. While this method has its benefits, it also has the potential to cause us to read and believe information that is either extremely slanted or outright wrong. When evaluating the relevance, usefulness, and accuracy of content found on social media platforms, a critical mindset is essential. "Social media also present potential risk to patients and HCPs regarding the distribution of poor-quality information, damage to professional image, breaches of patient privacy, violation of personal-professional boundaries, and licensing or legal issues", (Ventola, 2014).

According to (Cerrone,2016) positive impacts of using social media as a news source is as follows:

Simplicity-One of the most obvious benefits of acquiring news via social media is its accessibility. Social networks are easy to use on the go and one of the most convenient ways to read news, because they are accessible across devices.

Personalisation-Instead of reading through numerous newspapers or moving between several websites, we can now aggregate personalized news with the touch of a button thanks to social media. We may keep up-to-date on a variety of news coverage by simply 'liking' or 'following' our favourite newspapers, reporters or trends.

Timeliness-One of the most important components of social media news sourcing is the coverage's timeliness. Facebook timeliness and Twitter feeds are constantly updated, ensuring that the news is always "fresh" throughout the day.

Interaction-Using social media to discuss current events allows us to communicate with people in our networks. Sharing an article, liking someone else's post, or retweeting a link are all excellent methods to start a discussion or spread information about things we care about.

It is undeniable that, when properly utilised, social media provides us with a plethora of knowledge that sustainably enhances our lives in ways that earlier generations could never have imagined. Using social media to gather news can be quite beneficial to our lives if we take the time to analyse both its pros and drawbacks.

2.8 Summary

The review's objective was to examine historical patterns in composition studies and to help the reader understand the Persuasive and Social Influence Theory. In order to pinpoint recurring themes in attitude change research, this chapter has studied literature on message-based persuasion and social impact. The motivations driving recipients' responses to influence appeals and the range of cognitive and affective processes involved in attitude change and resistance are being defined in these traditionally distinct fields of research through theoretical and empirical studies. The next chapter will look at the research methodology in detail.

Chapter 3

Research Methodology

3.1 Introduction

As it is indicated in the title, this chapter includes the research methodology of the study. In more details, in this part the researcher outlines the research design, the data collection, the population and sample, data collection instruments and tools, reliability and validity, the data collection procedure, the type of data analysis and the ethical considerations of the project.

3.2 Research design- Quantitative technique

A quantitative approach was followed to determine the actual reality regarding the questions being researched. According to Burns and Grove (1993:777), quantitative research is a rigorous, impartial, and systematic technique used to characterise and test correlations as well as look at interactions between causes and effects among variables. Descriptive, explanatory, and exploratory research can all be conducted using surveys.

Quantitative research, according to Bryman (2012, p. 35), is "a research technique that emphasizes quantification in the collecting and analysis of data." It indicates that quantitative study implies significance. How many, how much, and to what extent are the first three research questions that are attempted to be answered? (Rasinger, 2013). In other words, the method places a lot of emphasis on assessing a factor or factors that are present in the social world. According to (Payne,G., & Payne,J, 2004), quantitative methods (typically using deductive logic) seek regularities in human lives by breaking down the social world into empirical components known as variables that can be represented numerically as frequencies or rate, whose associations with one another can be explored by statistical techniques, and accessed through researcher-introduced stimuli and systematic measurement.

Instead of just identifying and interpreting the meanings that people assign to their own actions, quantitative research focuses on those characteristics of social behaviour that can be measured and structured. The qualitative results involve the larger, randomly chosen sample, they are likely to be extrapolated to the entire population or a subpopulation (Carr, 1994). In addition to sampling, data processing takes less time since it makes use of statistical software like SPSS (Connolly, 2007).

The ordering of reality and the materialized discourses can both be usefully understood through the use of quantitative tools. They can also lessen bias against an individual. Due to the classification process' intrinsic reductionism, they are unable to offer an in-depth comprehension of the investigated things. The problem is not urgent, though, because discourses rather than actual things are the subjects of the investigation. However, the time-intensive nature of large-scale data collection and annotation places practical restrictions on study.

However, the quantitative research approach also has limitations too. The common meanings of social phenomena are excluded by the positivist research (Denzin, N.K., & Lincoln, Y.S., 1998). Additionally, it misses underlying truths and deeper answers. The authors of Bouwer, Beguin, Sanders, and van den Bergh's (2015) study used a variety of types of variances to measure the impact of genre on writing scores, including person, genre, person by genre, task within genre, person by task within genre, ratters who assigned ratings to tasks within various genres, and random error. However, the study did not go into detail on the causes of the effect or what they meant in that specific situation.

Another drawback of quantitative research approach is that positivism does not take into consideration how social reality is created and maintained or how individuals see their own behaviour and that of others (Blaikie, 2007). It has been discovered that studies on quantitative language testing just examine and evaluate language skills, competency, score, and other factors. Katzenberger and Meilijson (2014) carried out a study on the evaluation of Hebrew language for pre-schoolers with the aim of identifying the language-impaired Hebrew-speaking pre-schoolers and determining whether the test can distinguish between the developing and language-impaired children. The study did not, however, look into why some kids learn languages well and why some have trouble. In other words, the research ignored the truth or the children's perception of their ability to learn Hebrew.

Finally, the quantitative research paradigm ignores the respondents' viewpoints and experiences in highly controlled settings because there is no direct interaction between researchers and participants when data is being gathered (Ary, Jacobs, Sorenseen, & Walker, 2013). The process of gathering the data becomes objective as a result. By giving out test-lets, the study of (Gu, 2015) involved 498 individuals in the study's language ability exam. Given that the researchers had no interaction with the participants other than to distribute the test-lets, this demonstrates that the study was unable to elicit their perceptions.

3.3 Data collection methods

As mentioned in paragraph 3.2, the researcher used the quantitative approach. The researcher will approach the quantitative method by using the survey method. The respondents would have to answer to close and open-ended questions.

According to Enanoria, W (2005), survey refers to a systematic method of gathering information from (a sample of) individuals to describe the attributes of the larger population of which the individuals are members. The survey was designed to be descriptive. A survey is used to gather original information on a population that is too vast to be seen in person (Mouton, 1996). In a survey, a sample of people reply to a series of questions asked by the researcher in order to self-report information (Polit & Hungler 1993:148).

In the surveying method, information is collected by asking people questions. The respondents would have to answer to close and open-ended questions. In this study, data were gathered through self-administered questionnaires that the researcher physically gave to the study participants. In the survey, the researcher used short answer responses, dichotomous questions, multiple choice answers, paragraphs and check boxes.

Through Surveying the researcher can reach a large number of respondents and generate standardized quantifiable data as well as allow for comparison (O'Leary, 2014). The research will gather information through written surveys (questionnaires), verbal surveys (interviews), and "Survey Monkey" for online surveying.

3.4 Research population and sample

All elements (people, things, and events) that satisfy the sample requirements for inclusion in research are referred to as a population, according to Burns and Grove (1993:779). The population will consist of 200 Groot-aub residents or those visiting at the time of the study. The population will also be broken down into either gender, age, marital status, income, location, occupation etc., based on their willingness to participate.

A sample, according to (Mouton, 1996) is a group of items chosen with the goal of learning more about the entire population from which they were drawn. Subjects enrolled in the study because they were in the right place at the right time constitute a convenient sample (Polit &

Hungler 1993:176). Participants will purposely be selected. The researcher will make use of the purposive sample. Due to time and cost constraints 1000 people would be selected from informal settlements, Groot-aub and 1000 from people from Windhoek. The purposive sample will help the researcher make the most out of a small population of interest and arrive at a valuable research outcome.

The sample's subjects were chosen based on a set of requirements. The participants had to meet the following criteria to be included in the sample.

They should:

- Be willing to participate
- Be 18 years and older
- of either gender, race or religion

3.5 Data collection instruments

A questionnaire was chosen as a data collection instrument. According to (Burns & Grove, 1993) a questionnaire is a printed self-report form designed to elicit information that can be obtained through the written responses of the subjects. The information obtained through a questionnaire is similar to that obtained by an interview, but the questions tend to have less depth.

Both questionnaire types will comprise closed-ended questions to generate quantitative data. The medium through which the survey will be administered will be face-to-face questionnaires, online questionnaires, and telephone questionnaires. 'Surveying' is the process by which the researcher collects data through a questionnaire (O'Leary, 2014). A 'questionnaire' is the instrument for collecting the primary data (Cohen, 2011). Questionnaires have many uses, most notably to discover what the masses are thinking. These include market research, political polling, customer service feedback, evaluations, opinion polls, and social research (O'Leary, 2014). O'Leary (2014) offers further instructions to attach a cover letter that describes who you are, the aim of the project, and assurances of confidentiality. The questionnaire consisted of demographic questions. Instruction guidelines were attached to the questionnaires to guide the subjects as to when to circle or tick the chosen response.

Data was collected with the aid of questionnaires, to explore the influence of social media postings on the uptake of the Covid-19 vaccine, among Namibians. Questionnaires were decided upon because of the following:

- They ensured a high response rate as the questionnaires were distributed to respondents to complete and were personally collected by the researcher.
- They are less time consuming and energy to administer.
- They offered the possibility of anonymity because subjects' names were not required on the completed questionnaires.
- There was less opportunity for bias as they were presented in a consistent manner.
- Most of the items in the questionnaires were closed-ended, which made it easier to compare the responses to each item.

3.6 Reliability and Validity

3.6.1 Reliability

Polit and Hungler (1993:445) refer to reliability as the degree of consistency with which an instrument measures the attribute it is designed to measure. Reliability can also be ensured by minimising sources of measurement error, like data bias. Data collector bias was minimised by the researcher being the only one to administer the questionnaires, and standardising conditions such as exhibiting similar personal attributes to all respondents, e.g., friendliness and support.

To ensure reliability, the researcher also looked for similar studies that were previously carried out and compare the findings with theirs. To do a clear comparison, the researcher had all sources at their disposal. If the responses of all studies are consistently achieved by using the same methods, the researcher will conclude that the study is reliable.

3.6.2 Validity

The validity of an instrument is the degree to which an instrument measures what it is intended to measure (Polit & Hungler 1993:448). Content validity refers to the extent to which an instrument represents the factors under study.

Questions were based on information gathered during the literature review. Content validity was further ensured by consistency in administering the questionnaires. All questionnaires were distributed to subjects personally. The questions were formulated in simple language for clarity and ease of understanding. Clear instructions were attached to the questionnaires and the researcher completed the questionnaires for those who could not read.

3.7 Data analysis

“Data analysis is the vehicle used to generate and validate interpretations, formulate inferences, and draw conclusions,” as stated by Sherman (2007, p.147). The researcher will make use of the quantitative analysis, which will then be manipulated into statistical data analysis. Quantitative statistical procedures will be used to analyse data obtained through the survey. To perform and analyse the data collected the researcher will use the Statistical Package for the Social Sciences (SPSS) tool. Below are definitions of what SPSS being and its advantages:

“SPSS is a statistical package designed by the IBM Corporation and widely used by researchers or academicians worldwide. This statistical package is very user friendly and various statistical tests could be conducted using this software. This statistical software undertakes both comparison and correlational statistical tests in the context of univariate, bivariate and multivariate analysis for both the parametric and non-parametric statistical techniques,” as stated by (Hair, 2011).

The SPSS tool will help the researcher to analyse and mine text data so that he/she can get more out of the survey project. Descriptive Statistics features of the software involving frequencies and cross-tabulations will be used and findings will be presented using tables, bars, and pie charts. Descriptive analysis will be used to present data from key interviews. The researcher will make use of the SPSS tool because it is easy to use, (Sherman,2007).

3.8 Ethical considerations in research

The conducting of research requires not only expertise and diligence, but also honesty and integrity. This is done to recognise and protect the rights of human subjects. To render the study

ethical, the rights to self-determination, anonymity, confidentiality and informed consent were observed.

In addition, seek approval from the UNAM communications department to release a notice which states that the final year media students will be carrying out their research, hence they should be on the lookout and participate. The notice issued by the communications department will serve to inform students and the general public beforehand so that they are not afraid to share information.

Subjects' consent was obtained before they completed the questionnaires. Burns and Grove (1993:776) define informed consent as the prospective subject's agreement to participate voluntarily in a study, which is reached after assimilation of essential information about the study. The subjects were informed of their rights to voluntarily consent or decline to participate, and to withdraw participation at any time without penalty.

Subjects were informed about the purpose of the study, the procedures that would be used to collect the data, and assured that there were no potential risks or costs involved.

Anonymity and confidentiality were maintained throughout the study. Burns and Grove (1993:762) define anonymity as when subjects cannot be linked, even by the researcher, with his or her individual responses. In this study anonymity was ensured by not disclosing the patient's name on the questionnaire and research reports and detaching the written consent from the questionnaire.

When subjects are promised confidentiality, it means that the information will not be publicly reported in a way which identifies them (Polit & Hungler 1995:139). In this study, confidentiality was maintained by keeping the collected data confidential and not revealing the subjects' identities when reporting or publishing the study (Burns & Grove 1993:99). No identifying information was entered onto the questionnaires, and questionnaires were only numbered after data was collected (Polit & Hungler ,1995:139).

The ethical principle of self-determination was also maintained. Subjects were treated as autonomous agents by informing them about the study and allowing them to voluntarily choose to participate or not. Lastly, information was provided about the researcher in the event of further questions or complaints.

Scientific honesty is regarded as a very important ethical responsibility when conducting research. Dishonest conduct includes manipulation of design and methods, and retention or manipulation of data (Brink 1996:47). The researcher tried to avoid any form of dishonesty by recording truthfully the answers of those subjects who could not read or write. Manipulation of data could not be done as the supervisor and an independent statistician entered the data from the questionnaires into the SPSS computer software programme.

3.9 Summary

The researcher used a quantitative, descriptive survey design. She in addition gave the subjects their consent to be questioned. During the administration of the questionnaires and the creation of the reports, confidentiality, self-determination, and anonymity were all maintained. To establish validity, individuals were given questionnaires. By pretesting the survey, reliability and validity were further strengthened.

This chapter discussed the research methodology, including the demographic, sample, data collection tools, and tactics employed to assure the study's reliability, validity, and adherence to ethical standards.

Chapter 4

Data analysis and presentation of research findings

4.1 Introduction

This chapter gives a detailed description of the data collected for the study and the procedure used to analyse the data. It also discusses the findings of the study. The questionnaire used in this study was carefully analysed to ensure that the data gathered was presented clearly with the aid of tables, percentages and graphs where possible. The overall objective of the study was to determine and evaluate social attitudes towards the Covid-19 vaccine in town and informal settlements areas, due to social media postings as well as to reflect how social media postings on various social media platforms influenced the uptake of the covid-19 vaccines.

4.2 Response rate of respondents

The response rate is normally applied to questionnaires or surveys and is the percentage of people in the sample who actually responds. A good survey response rate is the ultimate goal as it can provide higher data quality and accuracy. In this study, 200 surveys were distributed through google forms and 200 respondents replied. Therefore, the target was met with a response rate of 100%.

4.3 Characteristics of respondents

This section analyses the various demographic characteristics of the respondents. Supporting figures are provided.

Age	Frequency	Percentage
18-25	78	39%
26-35	50	25%
36 years and above	72	36%
Total	200	100

Table 1

Generally, age refers to the number of years someone has lived. Age is one of the most important characteristics in understanding respondents' views about a particular problem. Age also indicates the level of maturity of individuals in respondents' response.

In this study, the respondents age group was categorised into three age groups. The group ranges from 18-25, 26-35 and 36 years and above (see Table 1). The findings show that the majority of the respondents (39%) had their age ranging between 18-25, followed by 36 years and above with 36%, and lastly, the 26-35 age group of respondents constituted 25% of the total respondents. The age group 18 to 25 is the largest that forms part of the Namibian population. It is evident that the respondents between the ages of 18 to 25 are the most active social media users and were free and willing to complete the survey.

Gender	Frequency	Percentage
Male	95	47.5%
Female	105	52.5%

Total	200	100
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Table 2

According to the (WHO, 2022), gender refers to the characteristics of women, men, girls, and boys that are socially constructed. This includes norms, behaviours, and roles associated with being a woman, man, girl, or boy, as well as relationships with each other. Of the 200 respondents in this survey, 52.5 % were female while 47.5% were male. There were 5 percent more female respondents in this survey than male respondents (see Table 2).

Level of education	Frequency	Percentage
Primary	61	30.7%
Secondary	61	30.7%
Tertiary	77	38.7%
Total	199	100

Table 3

Education is the source of knowledge, skills, discipline, motivation, and self-confidence (Cooper, GimenoGascon, and Woo,1994). Hence it is one of the most important characteristics that might a person’s attitudes and the way of looking at and understanding any particular phenomenon. A person’s reaction may be influenced by their level of education, so it’s important to know how educated the respondents are. The findings show that 38.7% of respondents are college graduates, 30.7% received primary education, and 30.7% of respondents have attended secondary school (see Table 3). In addition, the findings also show that the majority of respondents which is 38.7% attained a higher level of education which is tertiary education.

Occupation	Frequency	Percentage
Unemployed	82	41.4%
Student	40	20.2%
Employed	41	20.7%
Self-employed	35.046	17.7%
Total	198	100

Table 4

The researcher asked both male and female respondents what their occupation was at the time of the survey. Considering the occupation status of the respondents in this study, (Table 4) shows that 41.4% were unemployed, 20.2% were students, 20.7% were employed and 17.7% are self-employed. Unemployment refers to the share of the labour force that is without work, but available and seeking employment. Data collected by the researcher shows that more females were unemployed than male at the time of the survey.

Place of residency	Frequency	Percentage
Town	87	43.9%
Informal settlement	66	33.3%
Village	45	22.7%
Total	198	100

Table 5

A total of 200 persons participated in the survey, but only 198 answered this question. In terms of place of residency, the majority (43.9%) live in urban areas, 33.3% live in informal settlements and 22.7 live in the village. The researcher examined differences between rural and urban residents, for access to information on social media. Often, the most rural and areas were found to be disadvantaged compared to suburban areas such as informal settlements.

4.4 Vaccinated or not vaccinated against covid-19

This question analyses whether the respondents were vaccinated against the covid-19, what type of vaccine they received and willingness to get vaccinated. Supporting figures are provided.

Are you vaccinated against covid-19	Frequency	Percentage
Yes	114	57%
No	86	43%
Total	200	100

Table 6

If Yes,which vaccination type have you received?
121 responses

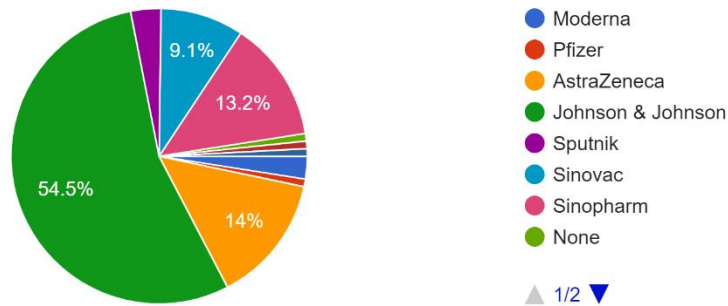


Fig 1

According to (Moghadas et.al) global vaccine efforts have been accelerated in response to the devastating coronavirus pandemic. In this study majority (57%) of the respondents were vaccinated while minority (43%) were not vaccinated (see Table 6). This indicates that the respondents are vaccine hesitant to get vaccinated. According to the (WHO,2022) Namibia is amongst the countries in Africa with low vaccination rate. As of 15 June 2022, only 23.8% Namibians were fully vaccinated from the target population of 1,779,271.

From the majority of respondents that are vaccinated, 54.5% received Johnson & Johnson, 13.2% received Sinopharm, 14% received AstraZeneca and 9.1% received the Sinovac vaccine (see fig 1). Majority of the respondents chose the Johnson & Johnson vaccine. According to **Invalid source specified**, the Johnson & Johnson vaccine has become popular since its arrival and roll out in Namibia in September 2021. On September 2021, Namibia received a consignment of the Johnson & Johnson covid-19 vaccine that it had procured through the African Union's (AU) African Vaccine Acquisition Trust (AVAT). The consignment consisted of 108,000 doses of the vaccine. Since then tens of thousands of Namibians have opted for the vaccine over other vaccines available in the country.

The researcher asked the respondents that were not vaccinated whether they were willing to get vaccinated, 36.7% indicated definitely not, 22% definitely yes, 19.3% unlikely, 9.2% likely and 12.8% very likely. It is evident in this survey vaccine hesitancy is high (see fig 2 below). There were various reasons behind vaccine hesitancy among the respondents who said that they are definitely not willing to get vaccinated.

Willingness to take the Covid-19 vaccine

109 responses

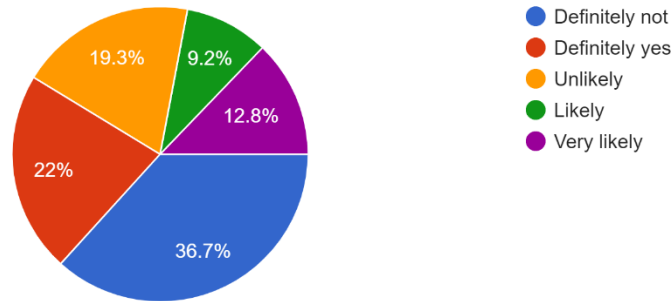


Fig 2

4.5 Have you come across any social media posts on the uptake of the covid-19 vaccine

This study further probe analysis if respondents have come across social media postings, on which social media platform, to what extent social media postings on the vaccine influenced their decision to get vaccinated or not and who posted a lot about the vaccine. Supporting figures are provided.

The pace on which technology is evolving is ever increasing and people are eager to embrace it. Consider this in 2019 there were 5112 billion mobile users,4388 billion internet users and 3484 billion active social media users. All of these groups have grown by between 2 and 9% since 2018 and are expected to grow throughout 2020 (Thomas, 2019).In this study majority (178) respondents which makes up 89% of the sample have come across social media postings on the uptake of the covid-19 vaccine, while 22 respondents which makes up 11% of the sample under study have not come across such postings (see Table 7).It is evident that 89% of the sample are embracing technology and social media in particular.

Respondents had to specify on which social media platform they came across postings on the uptake of the vaccine. Majority (68.3%) have seen such postings on Facebook, 45% WhatsApp, 19.4% Twitter, 16.7% Instagram, 17.2% YouTube and 21.1% on TikTok (see fig 3). It is evident that majority 68.3% are mostly active on the world’s largest and most popular social media platform, Facebook.

Majority (32%) of the respondent’s decision was not at all influenced by the social media postings on the vaccine, 6% to a lesser extent, 24.5% to some extent, 21.5% neutral and 16% to a great extent (see fig 4).

Respondents confirmed that social media postings on the vaccine were posted by 61.1% health organisations, 26.3% civilians, 10.3% celebrities and 43.3 newspaper/media organisations (see fig 5).

Have you come across any social media posts on the uptake of the covid-19 vaccine	Frequency	Percentage
Yes	178	89%
No	22	11%
Total	200	100

Table 7

If Yes, please specify on which social media platform you have come across postings on the uptake of the Covid-19 vaccine

180 responses

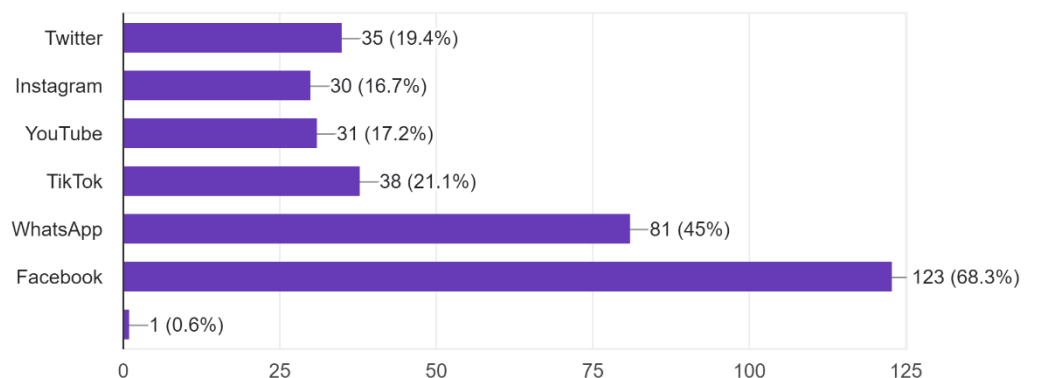


Fig 3

To what extent has social media postings on the uptake of the Covid-19 vaccine influence your decision to get vaccinated or not ?

200 responses

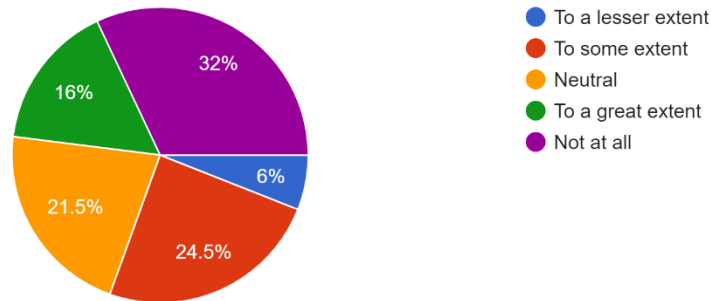


Fig 4

Who posts a lot on social media on the uptake of the Covid-19 vaccine?

194 responses

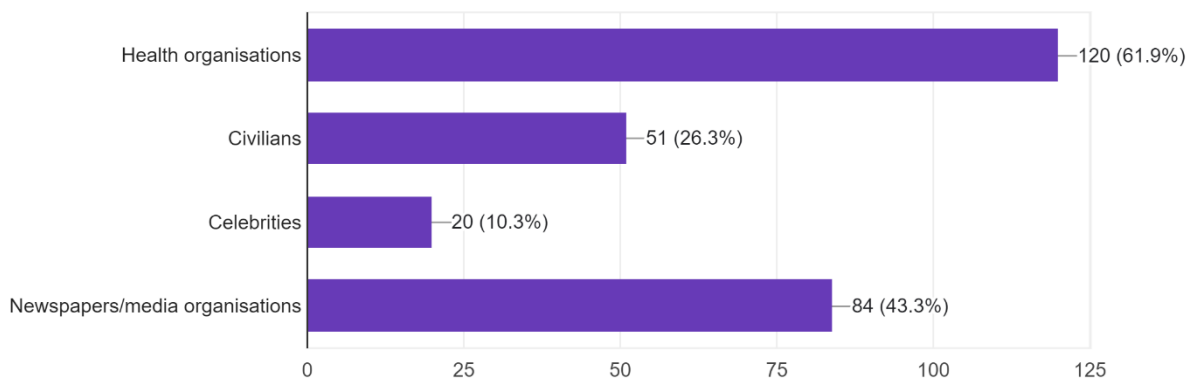


Fig 5

4.6 Do you fact-check social media postings on the uptake of the covid-19 vaccine

This study also analysed whether the respondents fact-check social media postings and what tools they used to verify facts. Supporting figures are provided.

Do you fact-check social media postings on the uptake of the vaccine	Frequency	Percentage
Often	38	19%

Sometimes	76	38%
Rarely	36	18%
Never	50	25%
Total	200	100

Table 8

Fact-checking is the process of verifying factual information ,in order to promote the veracity and correctness of reporting. It can be conducted before or after the text is published or otherwise disseminated. Majority (38%) of the respondents sometimes facct-check social media postings , 25% never, 19% often and 25% rarely (see Table 8).

People perform online searches all the time.One disadsvantage of the internet,though,is how easy it is to publish wrong information.With face news getting the spotlight in the past few years,the respondents were asked what tookl they use whenever they want to verify facts.Google is the leading tool the respondents use to varify facts with 80.6%,followed by 21.9% other search engines, 12.9% scholarly articles ,7.7% books. Minority (0.6%) of the respondents make use of other ways to verify facts this include,conculing health practitioners (see fig 6).

If Yes,what do you most commonly use to verify facts ?

155 responses

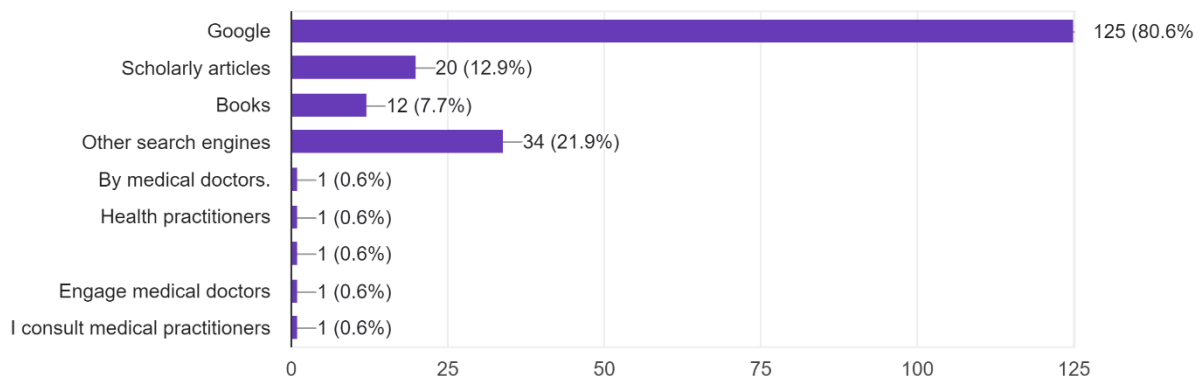


Fig 6

4.7 Respondent's view on social media postings on the uptake of the vaccine

The respondents were asked if they agree with the following statements or not

- “Social media postings on the uptake of the covid-19 vaccine are negatively misleading and biased”. Majority (47.5%) of the respondent's view the statement as neutral,18% agree,17% strongly agree,10.5 % disagree and 7% strongly disagree (see fig 7).
- “Social media postings on the uptakeof the covid-19 vaccine are positive,educative and unbiased”.Majority(51%) of the respondent's view the statement as neutral,21% agree,20% strongly agree,10% disagree and 6% strongly disagree (see fig 8).

Social media postings on the uptake of the Covid-19 vaccine are negatively misleading and biased
200 responses

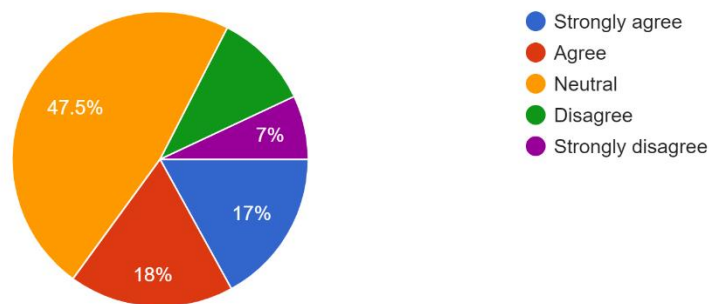


Fig 7

Social media postings on the uptake of the Covid-19 vaccine are positive ,educative and unbiased
200 responses

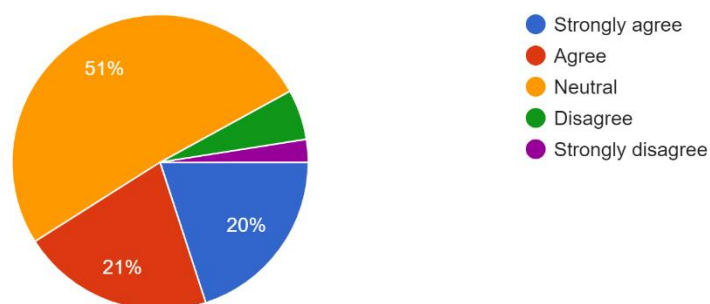


Fig 8

4.8 Summary

This chapter analysed and discussed the findings that were revealed through the collected data. The study aimed to identify the influence that social media postings on the uptake of the covid-19 vaccine have on Namibians. The main findings of the research were summarised in each section.

Chapter 5

Summary, findings, conclusions, and recommendations

5.1 Introduction

This chapter presents the discussion of findings, summary, conclusions and recommendations based on the data analysed in the previous chapter. Some limitations have been identified. The influence of social media postings on the uptake of the covid-19 vaccine among Namibians was researched by determining to what extent social media postings influenced the respondent's decision to get vaccinated or not.

5.2 Discussion of findings

In the literature review, social media has transformed in less than a generation from direct electronic information exchange to virtual gathering place, shopping platform, and critical 21st-century marketing tool, (Shah, 2016). On May 24, 1844, a stream of electronic dots and dashes punched out by hand on a telegraph machine marked the start of social media. In this study it is evident in the findings that majority (89%) of the respondents made use of social media.

Vaccine hesitancy was picked up in 43% respondents in this study. The respondents had the learning approach in the persuasive and social influence theoretical framework. According to this approach attitudes are non-observable responses that are learned and thus amendable to reinforcement process (Allport, 1934). To influence the ideas of respondents, they first need to understand and learn the ideas conveyed by the "Get Vaccinated" campaigns. Respondents

were vaccine hesitant because they did not understand the message conveyed to them about the covid-19 vaccine.

Attitudes and behaviour approach in the sample under study. Persuasion is about persuading someone to change their behaviour, and this focus is evident in several studies that deal with decisions like making a purchase, casting a ballot for a candidate, having safe sex, or operating a vehicle sober. In this case it is about deciding to get vaccinated or not .Majority (57%) decided to get vaccinated while 43% decided not to get vaccinated. The research also found that majority (43.9%) respondents who live in urban areas understand social media postings on the uptake of the covid-19 vaccine well.

On the negative impacts of social media (Shu et.al,2017) stated that it enables the wide spread of fake news, low quality of news with intentionally false information. The widespread dissemination of fake news has the potential to have tremendously detrimental consequences for both individuals and society. As a result, detecting false news on social media has recently been an emergent study topic that is gaining a lot of interest. Fake news identification on social media has unique characteristics and obstacles that render classic news media detection algorithms ineffective or inapplicable. This study has found that 38% sometimes do fact-check social media postings on the vaccine by health organisations (61.9%) with the aid of google (80.6%), 25% never, 19% often and 18% rarely.

Social media postings on the vaccine are not always negatively misleading and biased they can also be positive, educative and unbiased. Majority (47.5%) of the respondents were neutral with social media postings on the vaccine being negatively misleading, 18% agree,17% strongly agree,10.5 % disagree and 7% strongly disagree. On the statement of social media being positive, educative an unbiased majority (51%) were neutral,21% agree,20% strongly agree ,10% disagree and 6% strongly disagree.

5.3 Summary of the research

The literature study was done in chapter two of the research study conducted on the influence of social media postings on the uptake of the covid-19 vaccine among Namibians. The findings were as per follow: 47.5% female were vaccinated 435 males were not vaccinated. Most of the social media postings on the uptake of the covid-19 vaccine posted by 61.9% health

organisations, 32% respondents' decision were not at all influenced to get vaccinated or not by social media postings, 68.3% makes use of Facebook and that is the platform where they mostly came across such postings, majority (54. %) chose the Johnson & Johnson vaccine and lastly 41.4% were unemployed.

5.4 Conclusions

The objectives of the study were to:

- To evaluate social attitudes to the Covid-19 vaccine in town and informal settlements areas, due to social media postings
- To reflect how social media postings on various social media platforms influences the uptake of the covid-19 vaccine
- Explore how gender may influence the impact of social media postings on the uptake of the Covid-19 vaccine
- Evaluate how the education level of individuals may influence the uptake of the Covid-19 vaccine

The research approach used in this study was a quantitative approach (Pollit & Hungler; 1991:195).

The research population was 200 Groot-aub residents or visitors at the time of study. The sampling method used in this study was a purposive sampling method. The second majority (33.3%) of respondents were from informal settlements, this could be due to the fact that the research was conducted in their geographical area.

Interviews were conducted with 200 respondents using a prepared close-ended questionnaire which was answered on google forms by the interviewees. Interview schedule was coded for easy analysis and analyzed using the SPSS computer program. The findings were presented and discussed in chapter 4 by making use of frequency tables, bar and pie graphs.

Objective 1: To evaluate social attitudes to the covid-19 vaccine in town and informal settlement areas, due to social media postings

Respondents living in urban areas (43.9%) have more development in terms of health facilities while respondents living in rural areas (56%) don't have easy access to health facilities.

According to the findings of the study majority (43%) of the respondents reside in town,33.3% informal settlement and 22.7% village.

Objective 2: To reflect how social media postings on various social media platforms influences the uptake of the covid-19 vaccine

Out of the 200 participants 64(32%) decision to get vaccinated or not was not at all influenced by the social media postings. They free willingly decided to get vaccinated. “Social media postings on the uptake of the covid-19 vaccine are negatively misleading and biased”,36(18%) of the participants agreed with this statement. On the other hand, 21% participants agreed with the statement that says “Social media postings on the uptake of the covid-19 vaccine are positive, educative and unbiased”.

Objective 3: Explore how gender may influence the impact of social media postings on the uptake of the Covid-19 vaccine

Out of 200 participants in this study, the findings revealed that majority (39%) of the respondents were aged between 18-25 years, 25% 26-35 years and 36 years and above with 36%. Both genders were almost equally represented in the sample. Out of the 200 participants in this study,105(52.5%) were females while 95(47.5%) were male. The majority of respondents namely 41.4% were unemployed. The respondents could therefore be considered as poor.

Objective 4: Evaluate how the education level of individuals may influence the uptake of the Covid-19 vaccine

The findings of this research revealed that a large majority (38.7%) of the respondents has a very good knowledge of the covid-19 pandemic as they had tertiary education. The findings indicated that they knew:

- The first and after symptoms of the covid-19 pandemic
- That covid-19 was an infectious virus -although they appeared to be doubtful about the ways it could be contracted when they were confronted with more possibilities

- That covid-19 could be fatal, but can be felt that they felt more positive about the fact that it was curable
- What caused covid-19. The respondents also understood that covid-19 was caused by severe acute respiratory syndrome coronavirus 2 (SARS-Cov-2)
- That covid-19 was treated and also knew which vaccine to take, but did not know what the side effects of the vaccines were

5.5 Recommendations on what should be done with social media postings on the uptake of the covid-19 vaccine before and after it is disseminated to the public

- WHO should be in charge of any post related to covid-19 because some information is misleading and forcing people to merely believe in the vaccines
- Social media postings on the uptake of the covid-19 vaccine should be well scrutinised and evaluated by social media regulators
- Criminalise the spread of false and unqualified opinions
- Gatekeeping should be done by social media developers to only sent out information that has been well researched
- Health organisations such as the MoHSS and WHO should be neutral and inform people on the advantages and disadvantages of vaccines, instead of them only preaching about the advantages they should consider individual allergies and other chronic illnesses.
- Social media posts should be regulated

5.6 Recommendations for further study

Further research is recommended

- On this topic in other parts of Namibia which then could be compared with the findings of this research
- On the opinions and experiences of the vaccines and whether or not the vaccines are effective

5.7 Limitations

- This study only focused on the influence of social media postings on the uptake of the covid-19 vaccine among Groot-aub residents or visitors at the time of study, and the researcher does not claim that it can be generalised to any other areas. Research done on this topic in another area in Namibia might have quite different findings.
- Some of the items in the questionnaire should have been investigated more, for example why respondents chose the Johnson & Johnson vaccine over other vaccine types, reason as to why respondents chose not to get vaccinated, how many hours respondents spend consuming covid-19 related news on social media. This type of probing of answers could have been done if the qualitative research method was used. Another research method could therefore have generated different findings.
- Lastly a complete picture of the opinions of health organisations that posts majority (61.9%) on the uptake of the covid-19 vaccine.

5.8 Summary

The objectives of this research have been identified and the findings of the data collected discussed. It can be concluded that majority (38%) sometimes fact-check social media postings and are neutral with social media postings on the uptake of the covid-19 vaccine being positive, educative and unbiased. Vaccine hesitancy is also evident in this study.

References

- Ahmed, N. (2018). Social media use and influenza vaccine uptake among White and African American adults. *Amelia Jamison vaccine* 36(49), 7556-7561.
- Allport, G. (1934). Attitudes. In C. Murchison, (Eds). In *Handbook of social psychology* (pp. 798-844). Worcester: Clark University Press.
- Bell, J., Waters, S., & Ebooks Corporation. (2014). *Doing your research project: A guide for first-time researchers (Sixth ed)*. Maidenhead, Berkshire: Open University Press.
- Blaikie, N. (2007). In *Approaches of social enquiry (2nd ed)*. Cambridge: Polity Press.
- Carr, L. (1994). *The strengths and weaknesses of quantitative and qualitative research: What method for nursing?* Retrieved from Journal of Advanced Nursing, 20(4), 716-721:
<http://dx.doi.org/10.1046/j.1365-2648.1994.30040716.x>
- Carr, C., & Hayes, R. (2015). Social media: Defining, developing, and divining. *Atlantic journal of communication* 23 (1), 46-65.
- Chen, L., Lin, K., Q., Cao, T., & Han, K. (2020). Mislabeled, Fragmented, and conspiracy-driven: content analysis of the social media discourse about the HPV vaccine in China. *Asian Journal of Communication*, 30(6), 450-469.
- Chinn, C. (2011). Expanding the dimensions of epistemic cognition: Arguments from philosophy and psychology. *Educational psychology*, 141-167.
- Clemente. (2021). *Bloomer-.Are you a robot?* Retrieved from <https://www.bloomberg.com/opinion/articles/2022-02-08/social-media-is-wired-to-spread-misinformation-on-covid-19-and-everything-else>
- Cohen, L. (2011). *Research methods in education*. New York: Abingdom, Oxon.
- Connolly, P. (2007). *Qualitative data analysis in education: A critical introduction using SPSS*. London & New York, NY: Routledge.
- Cucinotta, D., & Vanelli, M. (2020). WHO Declares Covid-19 a pandemic. *Acta Biomedica: Altenei Parmensis*, 91(1), 157-160.
- Denzin, N. (2011). *The SAGE handbook of qualitative research*. CA: Thousand Oaks: SAGE.
- Denzin, N.K., & Lincoln, Y.S. (1998). *The landscape of qualitative research Theories and issues*. London: SAGE publication.
- DeVerna, M., et al. (2022). Identification and characterization of misinformation superspreaders on social media.
- Dewing, M. (2010). *Social Media : An introduction*. Library of Parliament.
- Flynn, L.R., Goldsmith, R.E., & Eastman, J.K. (1996). Opinion leaders and opinion seekers : Two new measurement scales. *Journal of the Academy of Marketing Science*, 24(2), 137-147.
- Gardikos, A & Crano, W.D. (2019). *Persuasion theories*. UK: Elsevier: Wright (Ed.) International Encyclopedia of Social and Behavioral Sciences (2nd ed.).

- Gizmodo. (2020). How Supercomputers Are Helping to Fight COVID-19.
- Gu, L. (2015). *Language ability of young English language learners: Definition ,configuration,and implications*. Retrieved from *Language Testing* 32(1),21-38:
<http://dx.doi.org/10.1177/0265532214542670>
- Hair, J. S. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, Vol.19(2), 139-151.
- Hamilton, P. (1992). Grunig'situational theory:A replication,application;and extension. *Journal of Public Relations Research*, 4(3),123-149.
- Kelman, H. (1961). Processes of opinion change. *Public Opinion Quarterly*.
- Kelman, H.C. (1974). *Further thoughts on the processes of compliance,identification,and internalisation*. Chicago: Aldine.
- Landa, J. (2005). *Narrative Theory*. On Line Edition: University of Zaragoza.
- Lipika. (2016, May 13). *What is Web 2.0*. Retrieved from SEO.
- May, M. (2021, December 14). *Freelance writer and esitor,Seattle,WA ,USA*. Retrieved from Eight unanswered questions about the Covid-19 pandemic: <https://doi.org/10.1038/s41591-021-01598-x>
- Miles,M.,B & Huberman ,A.M.,. (1994). *Qualitative Data Analysis*. Retrieved from <http://wilderdom.com.research/QualitativeVersusQuantitativeResearch.html>
- Mouton, J. (1996). *Understanding Social Research*. Pretoria: JL Van Schaik.
- Nutbeam,McGill & Premkumar. (2018). Improving health literacy in community populations : a review of progress. *Health promotion international* 33(5), 901-911.
- Nuzhath, T., et al. (2020). *A content analysis on Twitter data*. Retrieved from Google Scholar: Covid-19 vaccination hesitency,misinformation and consistency theories on social media:
https://scholar.google.com/scholar?hl=en&as_sdt0%2C5&q=Social_media_postings+on+the+uptake+of+the+Covid-19+vaccines+&btnG=#d=gs_qabs&u=%23p%3DulkSoXYPnQAJ
- O'Leary, Z. (2014). *The essential guide to doing your research* . London: SAGE.
- Oyeyemi.S.,Gabarron.E., & Wynn.R. (2014). Ebola ,Twitter,and misinformation:a dangerous combination ? *bmj.com*, 349.
- Payne,G., & Payne,J. (2004). Key concepts in social research. *Sage*, 108.
- Puri,N.,Coomes,E.,Hagbayan,H., & Gunaratne,K. (2020). Human vaccines & immunotherapeutic. *Social media and vaccine hesitancy:new updates for the era of Covid-19 and globalized infectious diseases*, 16(11),2586-2593.
- Sell, Hosangadi & Trotochaud. (2020). Misinformation and the US Ebola communication crisis:analysing the veracity and content of social media messages related to a fear- including disease outbreak.
- Shah, S. (2016, May 14). *The history of social networking*. Retrieved from <https://www.digitaltrends.com/web/the-history-of-social-networking/>

- Shahsavari, S. &. (2020). Conspiracy in the time of corona:Automatic detection of emerging COVID-19 conspiracy theories in social media and the news. *Journal of computational social science* 3 (2), 279-317.
- Sharma,K.,Zhang,Y., & Lui,Y. (2021, March). *COVID-19 vaccines :characerizing misinformation campaigns and vaccine hesitancy on twitter*.
- Shu, K. L. (2017). Fake news detection on social media:A data mining perspective. *ACM SIGKDD explorations newsletter* 19(1), 22-36.
- Shu, K. L. (2018). *Fakenews:A data repository with news content ,social context and spatialtemporal information for studying fake news on social media*.
- Sridhir, S and Srinivasan,R. (2012). Social influence effects in online product ratings. *Journal of Marketing*, (79),70-88.
- Thomas, D. (2019, August 22). *Global Digital 2019 reports*. Retrieved from What is the digital age ?: https://www.ventivtech.com/blog/what-is-the-digital-age?hs_amp=true
- Ventola, C. (2014). Social media and health care professionals: benefits,risks,and best practices. *Pharmacy and therapeutics* 39 (7), 491.
- WHO. (2020, March 11). *Director-General's opening remarks at the media briefing on Covid-19*. Retrieved from World Health Organisation: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-11-march-2020>
- WHO. (2020). *Rapid adaptation of HIV treatment programs in response to covid-19-namibia*. Retrieved from World Health Organisation Statistics: <https://covid19.who.int/region/afro/country/na>
- WHO. (2022). Retrieved from http://www.who.int/health-topics/gender#tab=tab_1
- Wilson,L.,& Wiyonge,C. (2020). *Social media and vaccine hecitancy*. Retrieved from BMJ Global Health ,1-2: <https://gh.bmj.com/content/bmjgh/5/10/e004206.full.pdf>
- Zhou, T. (2011). Understanding online community user participation: a social influence perspective. *Journal of Internet Research*, 21(1),67-81.