

**THE IMPACT OF SOCIAL MEDIA ON COVID-19 VACCINE HESITANCY ON
THE UNIVERSITY OF NAMIBIA MAIN CAMPUS STUDENTS**

**A research project report submitted in partial fulfilment of the requirements for the
degree of Bachelor of Arts in Media Studies (Honours) to the University of Namibia,
Faculty of Education and Human Science, Department of Social Sciences**

By

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Abstract

With the introduction of vaccines against the outbreak of COVID-19, a pandemic that has affected many sectors of every existing country globally, a panic among youths rooting from social media towards these vaccines has been identified. A study that would explore this possibility of social media involvement in COVID-19 hesitancy was conducted. The study mainly focused on why students happened to show hesitancy towards these COVID-19 vaccines.

In order to collect data, the researcher carried out a survey conducted among a reasonable sample, a non-experimental method which is under quantitative research method. After compiling a Google Form online based questionnaire, the data was analysed using Microsoft Excel Analysis ToolPak. From these research findings, it was established that UNAM Main Campus students have access to at least one social media platform that facilitated posts or publications on COVID-19 vaccines most of which were negative. It was also found that the same news on social media about COVID-19 vaccines did not persuade students to get vaccinated, this was due to its opinion towards the vaccines. The study recommends that UNAM utilizes these same platforms which students access the most in future campaigns to make sure the message shared to most of the target audience if not all.

Dedication

This study is wholeheartedly dedicated to my father Mr Raphael Mayumbelo, who has financially supported me throughout my academic journey, and together with my mom Ms Jenet Ndala who inspired me to take my studies seriously. I equally dedicate this research to my brothers Mayumbelo Gift Sinvula, and Mayumbelo Wasamunu. Their continuous moral, and spiritual support as well gave me strength throughout my university life. I still received the same support from all my siblings and my mentor Mushabati Mukaya.

Last but not least I would like to thank the almighty God and UNAM SDASM church society, Mutame Muyongo and Namwi Liswaniso for the spiritual council, as well as my classmates who aided me in many academic activities as well as friends. This work in a dedication to all of them.

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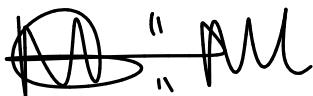
I would also like to acknowledge the support of my classmates, schoolmates as well as friends outside the institution for their support on my entire academic journey, their companionship has motivated me to pursue success in both my school and talents. Furthermore, I would like to give a special thanks to students that took their time to participate in my research, those provided answers and those who helped me dispense.

Declaration

I, Leavily Mwinga Mayumbelo, declare hereby that this study is a true reflection of my own research, and that this work, or part thereof, has not been submitted for a degree in any other institution of higher education.

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Student's Signature

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List of abbreviations and acronyms

BBC	British Broadcasting Corporations
CGTN	China Global Television Network
COVID-19	Coronavirus
DW	Deutsche Welle
FAO	Food and Agricultural Organization
IFAD	International Fund for Agricultural Development
ILO	International Labour Organization
IWC	Internet of Water Coalition
NaSIA	Namibia Saving and Investment Association
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
UN	United Nations
UNAM	University of Namibia
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNN	United Nations Namibia
WHO	World Health Organization

Chapter 1: Introduction

1.1. Introduction

This chapter begins with the background to establish what the research study is all about, this is cemented by introducing the statement of the problem and laying down the main issue why it was conducted. Furthermore, it highlights the objectives of the study that were followed by this research, as well as the limitations that were set to be encountered when executing these objectives and ends with a summary.

1.2. Orientation of the study

Coronavirus (COVID-19), an infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) is a novel severe acute respiratory syndrome virus (Namibia Statistics Agency, 2021). This is a virus that has plunged the world since 2019 in almost everything, according to a (BBC News, 2021a); where the US agencies stated that the origins of COVID-19 may never be known. The first-ever evidence of the virus was the case of a man in his 70s from China who had fallen ill on the 1st of December 2019 in the Wuhan province (Jane McMullen, 2021). Numerous of those were associated with a sprawling live animal market, Huanan Seafood Market which led doctors to presume this wasn't ordinary pneumonia. According to the Oxford Dictionary (2022), social media is defined as, “Websites and applications that enables users to create and share content or to participate in social platforms.”

According to ILO et al. (2020); the COVID-19 pandemic has led to a dramatic casualty of human life worldwide and poses an unprecedented challenge to public health, food systems as well as the world of work. Namibia saw its first outbreak and encounter with the virus in March 2020, according to the Namibian article by Theresia Tjihenuna (2020); a Romanian

couple who had travelled to Namibia from Spain were the first people to be diagnosed positive with the Coronavirus in Namibia on the 11th, the whole nation was caught in a panic. Even though the Romanian couple was the first to be diagnosed, they survived the ordeal but the number of positive cases began increasing gradually, 116 days later Elias Uutoni (45) was the first person to succumb to Covid-19 in Walvis Bay on the 8th of July (Taati Niilenge, 2022).

The University of Namibia (UNAM) felt the blow as well when the first two cases of the Romanian couple was reported leading to the cancellation of face-to-face lectures and resorting to online. Even though its limitations were discovered overtime, the university confirmed earlier that face-to-face will resume with the upcoming June/July examinations but later announced that students will not sit for their first semester examinations as the Covid-19 pandemic had taken its toll with a high number of cases (Nakale, 2020). This left university to resort back to online.

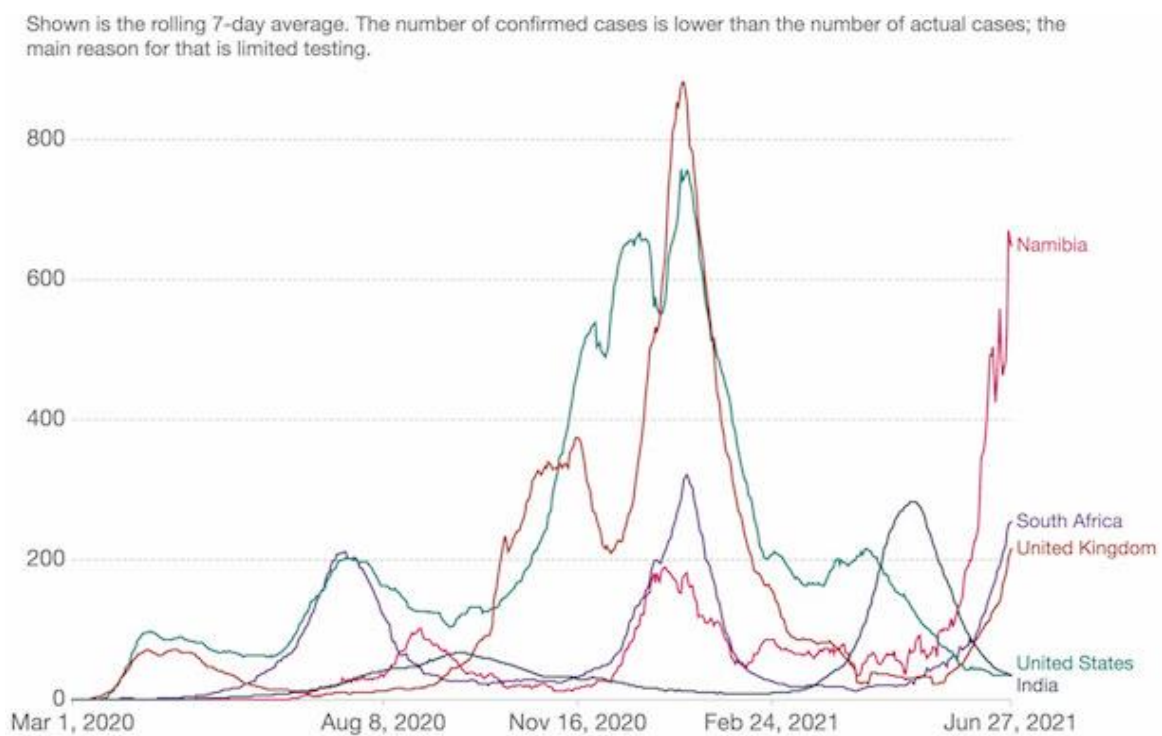
With civilians already on the edge, companies were also forced to shut down immediately in the same month the first two COVID-19 cases were reported. According to a national survey by the Namibia Statistics Agency (2021); the report indicated that the majority of the 828 people that chose to participate in both rural (49.2 %) and urban (46.2%) areas said they had to stop working because of COVID-19 legislative constraints that compelled companies to shut down or halt their enterprises. The report also states that despite the government's efforts to encourage employers to retain staff during the pandemic, a significant share of people (18.4% in urban and 11.9% in rural areas) also reported being retrenched from certain companies that continued to operate. According to statistics by The Visual and Data Journalism Team (2022); the world had recorded more than 470 million cases and 6 million

deaths by 2022. To these statistics, Namibia has contributed 157,545 confirmed cases of COVID-19 with 4,016 deaths (World Health Organisation [WHO], 2022).

Figure 1 below supplements these statistics by comparing those from Namibia to three countries from different continents which are Asia, Europe, North America and one from Africa.

Figure 1

Daily new confirmed COVID-19 cases per million people



Note. Johns Hopkins University CSSE COVID-19 data

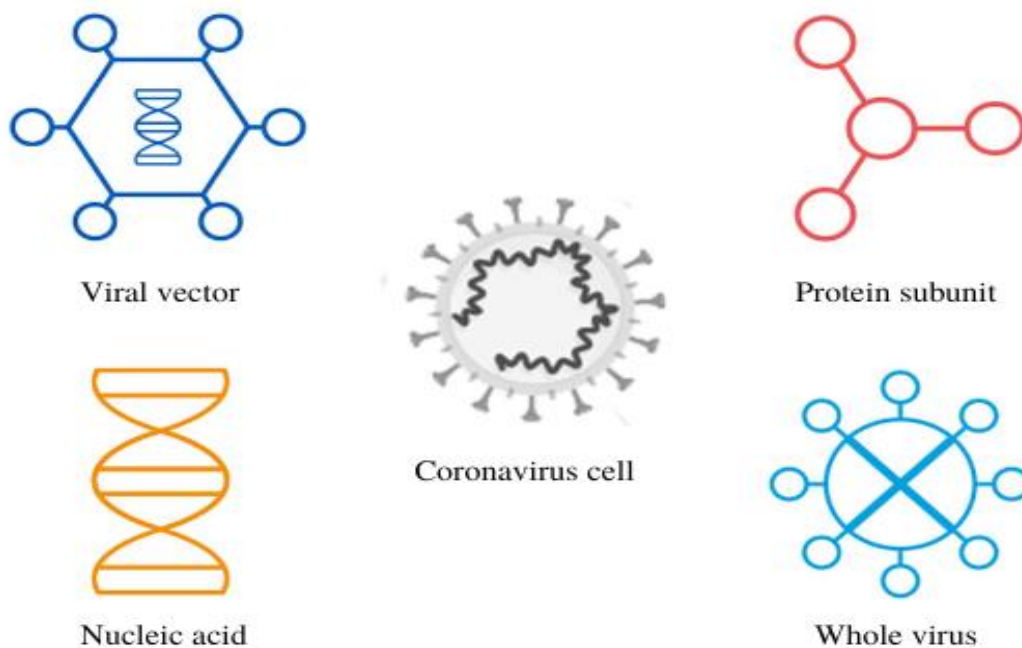
With almost a full year of scientists struggling to come up with a cure, the world finally saw the first administration of a COVID-19 vaccine in 2020. On the 8th of December, Margaret Keenan became the first person in the world at age 90 to be given a clinically-approved coronavirus vaccine as part of a vaccination program (BBC News, 2021b). According to Gavi the Vaccine Alliance (2022); scientists have been able to come up with more than a hundred

variety of vaccines that are still under clinical trials, so far there has only been four methods known to produce these vaccines.

Figure 2 below shows these vaccines which are Whole Virus, Protein Subunit, Viral Vector, and Nucleic Acid (RNA AND DNA).

Figure 2

Four methods to produce COVID-19 vaccines



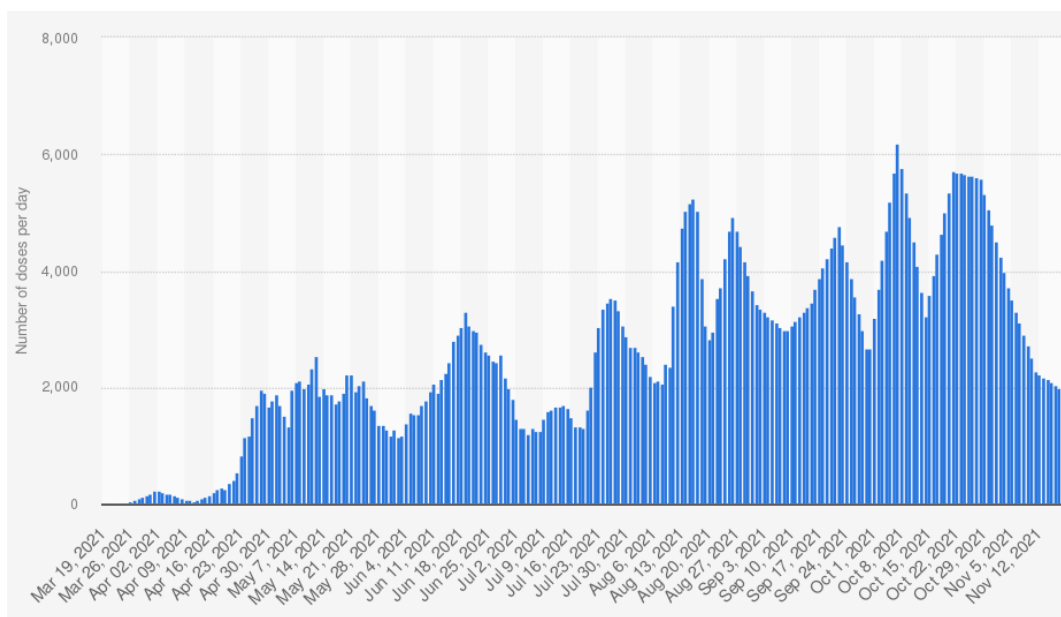
By the beginning of 2022 scientists had rolled out 21 vaccines to public health centres worldwide (James Fulker, 2022). According to the COVID19 Vaccine Tracker (2022); a total of five vaccine varieties were already circulating in Namibia by 2022, one being Pfizer/BioNTech Comirnaty which is a Nucleic Acid/RNA type, Approved in 141 countries 68 trials in 26 countries, three were Gamaleya Sputnik V (Approved in 74 countries and 24 trials in 7 countries), Janssen (Johnson & Johnson) Ad26.COV2.S (Approved in 108 countries and 20 trials in 22 countries), Serum Institute of India Covishield (Oxford/

AstraZeneca formulation) Approved in 47 countries & 2 trials in 1 country and these are Non-Replicating Viral Vector type, the fifth vaccine being Sinopharm (Beijing) an Inactivated type (Approved in 90 countries & 24 trials in 11 countries).

Figure 3 below reflects data of how people in Namibia reacted to the COVID-19 vaccination the same year the country received its first doses in the span of 9 months.

Figure 3

Daily number of coronavirus vaccination.



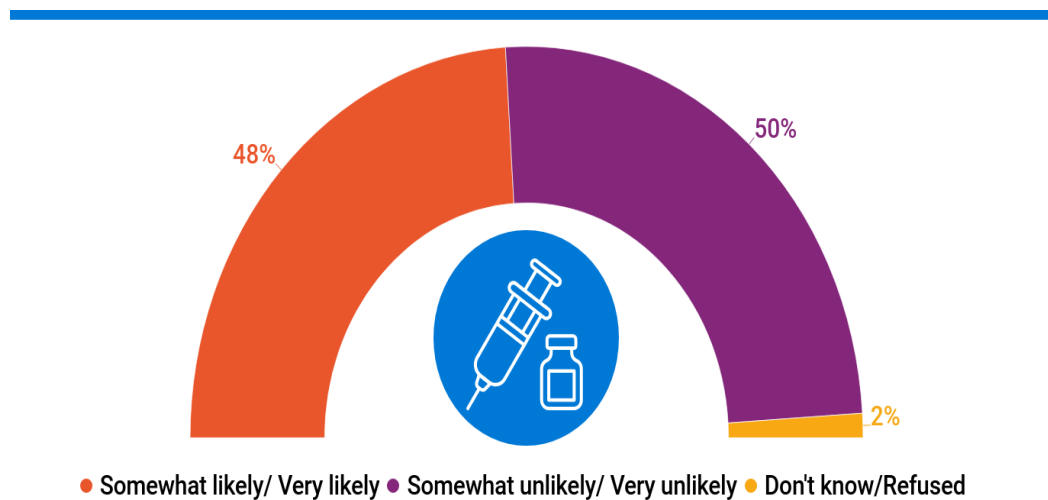
Note. Doses administered in Namibia as of November 18, 2021

Source: OWID/Statista 2021.

Figure 4 below supplements statistics given in Figure 3 by showing results of an observation done by Afro Barometer (2021), the figure indicates the likelihood of the Namibian population to get vaccinated.

Figure 4

Likelihood of getting vaccinated in Namibia



Source: Afro Barometer

Before reviewing what kind of content is found on social media one has to look at more than one definition to fully understand what social media is. According to Miller et al. (2018) social media is defined as, “The colonisation of the space between traditional broadcast and private dyadic communication,” in so doing it provides people with a scale of group size and degrees of privacy that we have termed scalable in a social way.

With almost every student having access to the internet, information is passed almost every second. Due to its pivotal role in shaping the public's knowledge, perception and attitudes during crises such as COVID-19 most people can just tap into this data by the push of a button (Ali et al., 2021). The article still points out that platforms such as WhatsApp, Facebook, Twitter, YouTube, and Instagram are the most common social media platforms globally. Kaisara and Bwalya (2020) quotes (Nuuyoma, Malope & Chihururu, 2020) who states that WhatsApp has even become the most popular social platform in Namibia.

1.3. Statement of the problem

Following the announcement of the first two COVID-19 cases, the acting Minister of Education, Mr. Martin Andjaba announced the closure of all public and private schools in Namibia from 16 March (United Nations Namibia, 2020). According to Mpungose (2020, as cited by Kaisara and Bwalya, 2020) states that; whilst numerous universities have already invested in e-learning platforms such as Moodle, it is noticeable that such platforms do not fully deal with the needs of learners. Kaisara and Bwalya (2020) still stressed out that even with all these discoveries it was found that most universities diverted to using the same platforms.

"The E-Learning methods currently practiced in education tend to make participating students undergo contemplation, remoteness and a lack of interaction," states Tamm (2022). She further explains that some students do not fully engage compared to face to face which in turn affects their academic harvest on a major scale. This led to a huge advocate of vaccines by the government as well as local celebrities if anything was to get back to normal including the resumption of face-to-face lectures.

With the arrival of vaccines, UNAM decided to resume face-to-face lectures which were heavily dependent on the vaccination of the mass population for this to happen. Due to the rejection by most people, the required statistics were met with difficulty as the public was not keen on taking the vaccine by March 2022, a total of 827,417 vaccine doses have been administered in Namibia ever since the country's health ministry began with the COVID-19 vaccinations (World Health Organisation [WHO], 2022)

According to a survey conducted by Kaunatjike (2021) on adherence to Covid-19 public health regulations stated that; the hesitation or rejection to take the COVID-19 vaccine has

distorted the effectiveness of the vaccination campaign in Namibia. The survey also revealed that a third of respondents were unwilling to get vaccinated.

1.4. Objectives of the study

The following objectives were drawn to guide this study and address the problem that was detected, these objectives would seek to:

- Assess the usage of popular social media platforms by UNAM Main Campus students during the pandemic;
- Determine the effect of social media on UNAM Main Campus student's health literacy towards COVID-19 vaccines;
- Evaluate elements within the social media platform contributed to the build-up of vaccine hesitancy towards UNAM Main Campus student.

1.5. Significance of the Study

Apart from providing data, the results of this study will motivate, and educate the young generation about social media and have a clear understanding of how it works in today's society, especially during a crisis. This research study also hopes to be part of this body of knowledge and in some way aid other students who are willing to look into the same topic with useful data.

1.6. Limitation of the Study

Out of the 12 UNAM campuses, this research study only focusses on the Main Campus. This will restrict the generalisation of findings to any other campus or school under UNAM as well as any other institution outside UNAM. Another limitation is the inadequate information on the subject, not enough research studies done previously and much is yet to be discovered.

Most of the sources that have been published over the past two and a half years are newspaper articles with a few journal articles that almost discuss the similar thing.

1.7. Summary

This first chapter provided an orientation into the study that gave a review on the current COVID-19 situation in Namibia, this also gave a view on UNAM's situation during the pandemic in terms of tutoring alternatives. The orientation also provided explanations of what the coronavirus is and the methods used to produce vaccines currently in circulation. Furthermore, this chapter addressed the statement of the problem as well as objectives set to review this problem. It also sets and points out other possible limitations that could be encountered while collection data for results as well as the significance of these results to other students and researchers seeking to investigate an issue on the same topic.

Chapter 2: Literature Review and Theoretical Framework

2.1. Introduction

This chapter is a compilation of previous works or studies done on the subject under investigation. These works are compiled under subheadings on how social media impacts modern-day societies, exploring how it can shape perspective during a crisis by carefully reviewing it under the latest pandemic of COVID-19. With the non-stop conspiracies behind the virus, this chapter does study the social platforms but a review of what people post and communicate through them, and the consequences of those postings.

2.2. Vaccine roll-out in Namibia

According to The Namibian (2021); vaccine roll out in Namibia began earlier in 2021 when the country received 100 000 doses from China of which required an administration process of two doses per person. Due to the limited number of doses, they could not vaccinate at least half the country's population, the country's financial status they could not order more as they had to compete with European countries for access to vaccines. Minister of health and social services Kalumbi Shangula stated that: "We would order 250 000 doses, while a European country would order a million doses. From a business perspective, the European country would be prioritized," (The Namibian, 2021).

Following the arrival of the vaccine, UNAM decided join the fight against COVID-19 by launching a COVID-19 vaccination clinic that ran as a 12 days pilot project from the end of July until the first week of August John-Colin (2021). This was made possible under UNAM Cares headed Rachel Freeman, and the project's main purpose was to weigh the need for a fixed clinic on campus in order to meet the Ministry of Health and Social Services' halfway in their aim to reach herd immunity against the COVID-19 for the county's population.

According to an article by John (2021), UNAM's great efforts were recognised by other organisations and was gracefully awarded a grant of N\$600 000 from an association of insurance corporations called Vaccines for Hope, under the stewardship of Namibia Saving and Investment Association (NaSIA).

This financial assistance was to enable UNAM Cares expand the vaccine roll out campaign to nearby towns and remote areas. The association of corporates included: First Rand Namibia, Hollard Namibia, Ninety-One, Old Mutual, Liberty Life, Allan Gray as well as Stanlib.

According to the Chancellor of the UNAM, His Excellency Dr Nangolo Mbumba, lauded the involved sponsors and stated that the funds were to be employed to perform the Covid-19 vaccination programmes and support the establishment of COVID-19 clinics at 9 of 12 campuses across the country.”

Even though many organisations have been involved in tackling this COVID-19 either through vaccine distribution, donations or food banks. The main problem still lies on the taking the vaccines, according to an article by CGTN (2022); Namibia launched an initiative called "Tourism Sector COVID-19 Vaccination Drive in Namibia" which was to encourage and organise Namibians from all around to get vaccinated, it was also aimed at debunking misinformation that is contributing to vaccination hesitancy.

The statistics that were reported at the launch of this vaccination drive by the health ministry were not pleasant, Namibia's Health Ministry executive director Ben Nangombe stated that: “"These figures are still far behind where we need to be as a country to control the pandemic." As of January 17, 2021 the statistics indicated that Namibia had only administered 413,876 first doses of COVID-19 vaccines, interpreting to 23.3 percent of the target population of 1.7 million. The total number of the vaccine eligible population was

increased from the initial 1.5 million when children of 12 years or older were added and lead to a total of 351,690 persons who were fully vaccinated (CGTN, 2022).

2.3. The complications of online learning during COVID-19

Following up on eLearning Africa and EdTech Hub (2020, p.14) observation on how COVID-19 pandemic has impacted face to face education in Africa states that a lack of access to technology is considered to be the biggest barrier for adopting to this new learning system the report provides strong justification for this:

Each sector has suffered in different ways and with different consequences. It would be facile to say that higher education suffered the least, because the students are adults, and they are much more likely to have access to the internet and eLearning than others. But it would be true to say that, without underestimating the challenges, provided the universities are proactive and thoughtful, they can probably reduce the educational impact of Covid-19 on their students, more easily than other sectors can. In any case, our survey shows there is a widespread view that higher education is far better placed to cope than any other sector - only 6% of respondents thought it was likely to be the most disadvantaged sector. Vocational sectors face added difficulties (as do some university students) of not having access to 'practical' work.

According to United Nations Educational, Scientific and Cultural Organization (UNESCO (2021); ever since the closure of schools and institutional centres has interrupted learning and other activities of the entire educational system, this includes parents and decision makers. The article further stated that in many African societies, apart from education schools provide other necessities to children such as meals to underprivileged learners and presents a safe space from violence but in terms of higher institutions, this can be a space for socialization.

Accessibility being one of the prominent issues with online education among the few students, UNESCO (2021) drew their estimates based on data from the International Telecommunication Unions acquired in 2019 before the pandemic spread worldwide.

Figure 5 shows an estimation consisting of any household with a student from all level of education; pre-primary, primary, secondary and tertiary levels.

Figure 5

Households without computers

	% WITHOUT COMPUTERS (2019)	STUDENTS WITHOUT A COMPUTER (MILLIONS)	% WITHOUT INTERNET (2019)	STUDENTS WITHOUT INTERNET (MILLIONS)
WORLD	53	826	43	706
SUB-SAHARAN AFRICA	92	216	86	199
NORTHERN AFRICA	47	29	41	25

Sources: Teacher Task Force/ UNESCO-UIS, 2020 and ITU database, 2021.

Note. This shows a percentage of households lacking computer devices and internet to support teaching and learning during the height of school closures during the 2020 COVID-19 crisis.

2.4. Knowledge seeking online

The vast majority of the world's population now uses social media. Carlile (2011) says; approximately one-third of the world's population is online, a platform that was previously known as the domain of static and written information, the web now delivers a host of multimedia and social media formulated to promote interaction as well as networking. Carlile (2011) states that; these developments in the web have been changing the way we live and work, reshaping the way knowledge is controlled. "With the increased use of social media,

there is a growing interest in using social interaction and social presence in education." States Ines et al. (2015).

IWC (2018) defines information simply as processed data while knowledge is what we already know, and the 21st century has seen to it that society is bombarded with information that shapes most of our knowledge today by introducing the Web in order to access it online. According to Schroeder (2018); browsing for and accessing of information online has become one of two main everyday online activities seconded by sociability or communication.

Furthermore, Purcell et al. (2012) as quoted by Schroeder (2018); the arrival of the Web has seen communication and information seeking to roughly equal one another in terms of what people do online, email is not the only platform available as a communication tool now. The research still stresses that much has been written about communication but we know little about information usage in people's everyday lives. This is partly because information seeking has been conducted by information scientists, and they typically examine quite specific or narrow tasks and pay little attention to social aspects of information use.

2.5. The impact of "infodemics" on health literacy concerning COVID-19

"Nearly one-third of the world's population is online. Once the domain of static, written information, the web now provides a host multimedia and social media designed to encourage interaction and network." Carlile (2011). According to an article by Elbarazi et al. (2022) which states that; by the first three months of 2020 social media had already published a lot of information and news reports about COVID-19 and people would refer to this as the so-called social media 'infodemic.' "When a disease outbreak grabs the public's attention, formal recommendations from medical experts are often muffled by a barrage of half-baked

advice, sketchy remedies, and misguided theories that circulate as anxious people rush to understand a new health risk," states Christina (2020).

According to Rory (2020); with the spread of COVID-19 around the world, it was very important that people had access to accurate information about the disease but it is not that simple in this day in age of social media. Platforms such as Facebook and YouTube are platforms accessed by billions for information and such a heavy responsibility provided fertile territory for those wanting to spread misinformation. "Given this essential role of digital platforms in the COVID-19 pandemic, social media have become crisis communication actors themselves," states Volkmer (2021).

A Deutsche Welle (DW) article by Scholz and Walker (2021) stated that, The World Health Organization (WHO) gave a report on the campaign they launched with a goal set for each African country to fully vaccinate 40% of their population as a year-end target, but that goal was missed, the campaign only yielded a total of seven out of 54 countries on the continent that reached the 40% target, according. That translates to about 9% of Africans being fully vaccinated against COVID. It remained evident that a lot of these African countries were unable to inoculate a majority of their people due to a lack of doses but what remained to be an even more worrying issue though, was the high level of vaccine hesitancy.

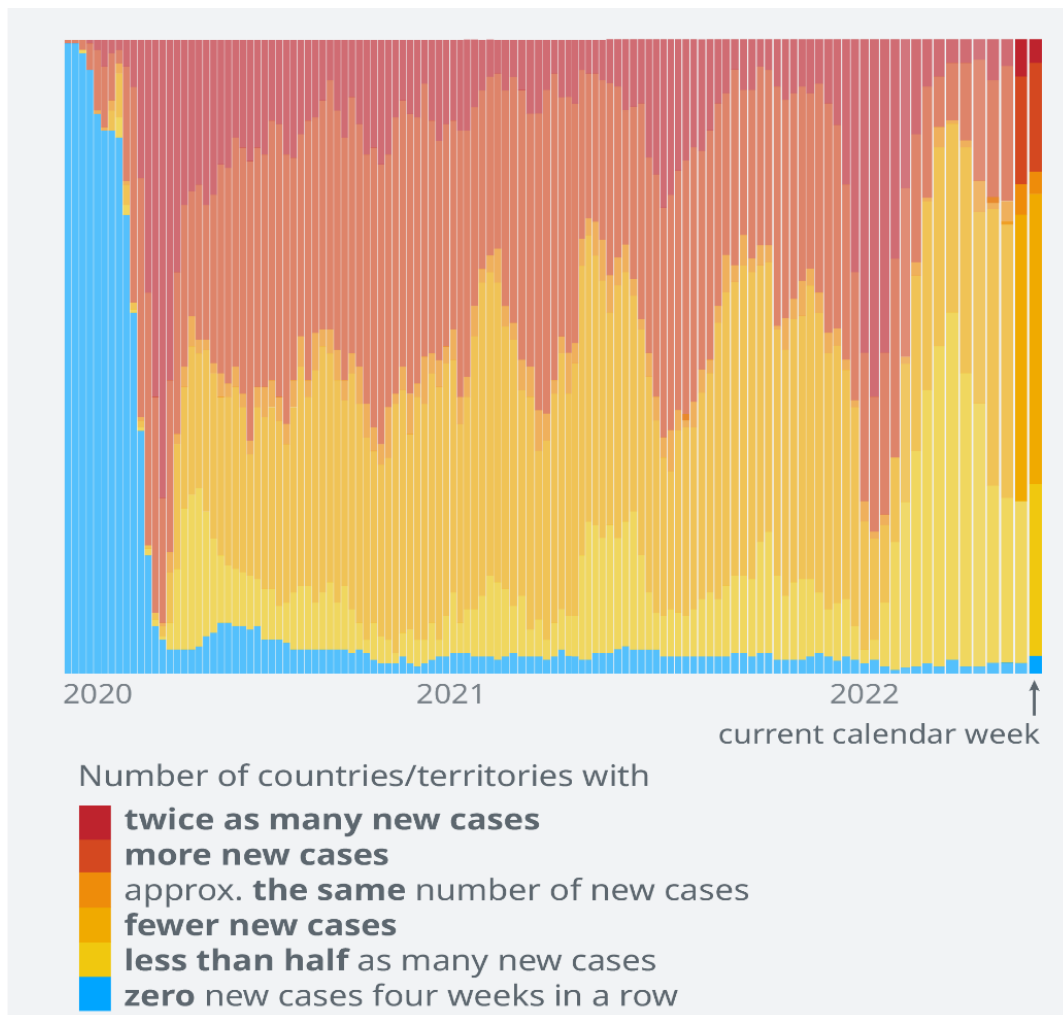
However, according to scientific resources, the social media infodemic was only spreading panic, as well as affecting the mental health of the users with various issues. "It is claimed that COVID-19 is the first true social media infodemic due to the accelerated rate of information and misinformation transmission around the globe, fuelling panic and fear within the global population." States Elbarazi et al. (2022) According to the same article, the World Health Organization (WHO) had to issue a warning statement regarding the impact of these

infodemic's on people's digital literacy, expressing their concerns mostly on its effect on health literacy, primarily to COVID-19.

Below is a figure that shows the number of cases in the past two and a half years worldwide as reported by DW news. The increase in vaccine hesitancy has deemed COVID-19 rather difficult to contain as shown over the past two years and the figure indicates the rise in the number of cases by 2022.

Figure 6

Global COVID-19 cases trend (Week 15, 2022)



Note. Comparison of newly reported case numbers in the past 14 days compared to the 14 days before that.

2.6. The effect of social media and influencers on student's behavioural patterns

When it comes to these platforms and influencing behaviour to the end users, we have factors such as celebrities, mainstream influencers as well as family or friends on platforms such as WhatsApp in the equation. Their influence has been recognized over the past couple of years since the introduction of social media, according to Min et al. (2019); in today's world, almost each household owns a television set or has access to the internet which they use on a daily basis, this leaves them exposed to countless advertisements both from known and unknown brands. The article quotes Rodgers and Torson (2000) who states that; in the end this bombardment hinders a brand's ability to stand out in the marketplace therefore brands ended up turning to celebrities to boost their products market value and so far, this has been a success in the marketing world.

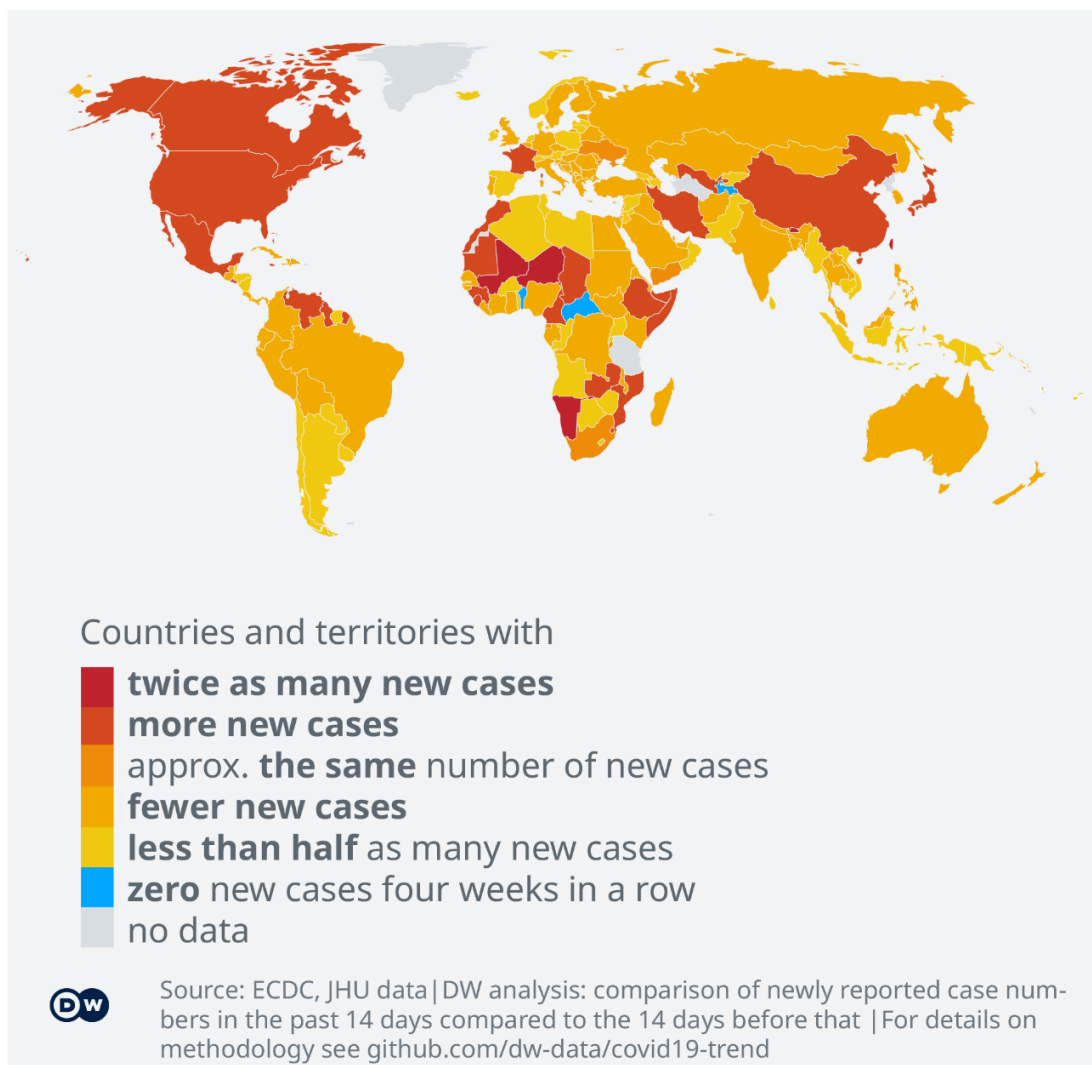
According to Volkmer (2021); the term influencer refers to individuals with a large group of social media followers, influencers such as Cristiano Ronaldo, a famous soccer player use their fames to build large groups of followers. Volkmer (2021) still argue that even the success of social platforms is mostly based on the ability their end users have of being able to build up their own communities of followers and interact directly with peers across countries, this gives them the power of influence which cannot be controlled in most cases. Their positive influence has not gone unnoticed as it has contributed greatly to the modernization of today's society and help in many other ways, however, they have presented patterns that have opposed some of the current societal values and norms.

According to Scholz and Walker (2021); the global health body in Africa is also finding it hard to combat the spread of misinformation on the continent of 1.3 billion people, part of the reasons being prominent people spreading this false information. The article quotes the WHO infodemic manager, Sergio Cecchini, who tells DW that: "Great influence in spreading fake

news also comes from religious leaders who claim vaccinations have effects on women's fertility, breastfeeding, and even death." Sergio emphasized that such inaccurate statements are one explanation for why multiple people do not get vaccinated. Furthermore, the WHO also found that this majority of fake news might not be originating from Africa but rather makes its way from places such as North America, Australia, and Russia and elsewhere in Europe through social channels.

Figure 7

New COVID-19 cases by country (Week 15, 2022)

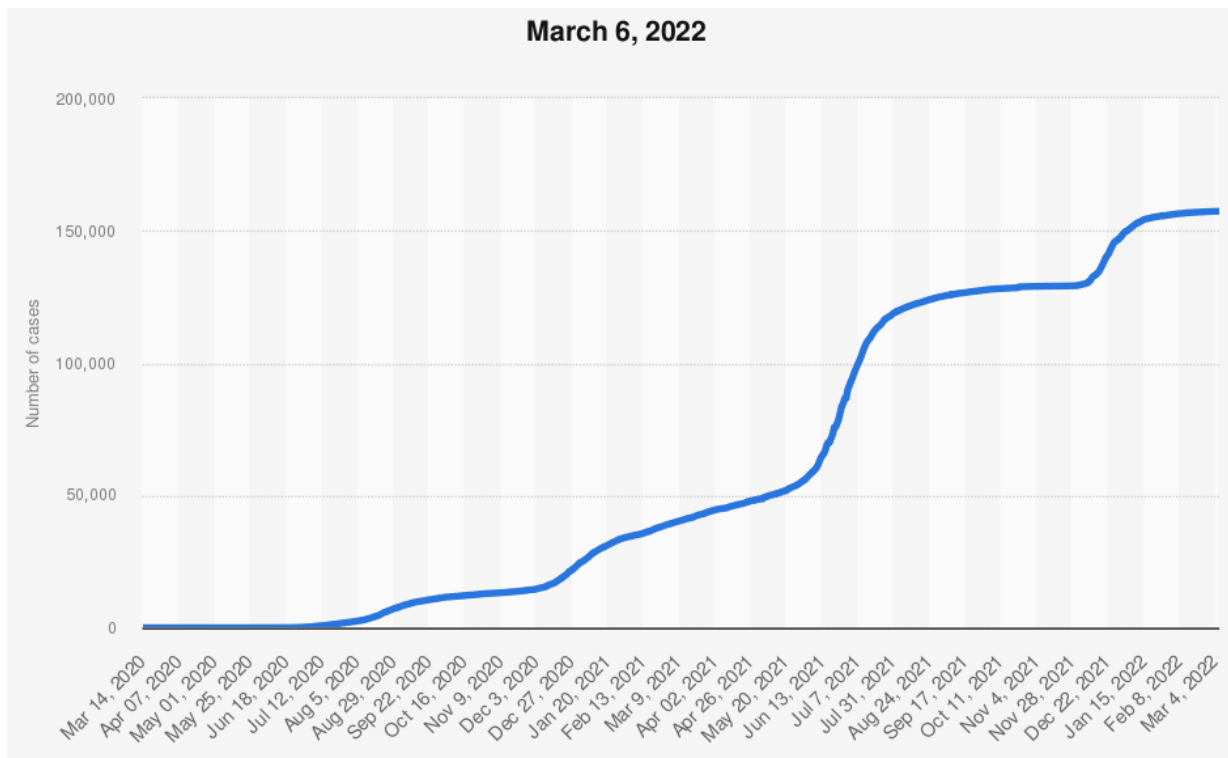


The map in Figure 7 above indicates statistics of the first four months of 2022, North America being one of the continents spreading misleading information and records the

highest number of new cases as well as Russia and Europe. The figure also indicates that Africa still has more places in the middle regions with people recording fewer cases but they are slowly on the rise. The influence of the outside regions mentioned leaves the continent with the most fluctuating data with regions falling in all seven categories according to the scale.

Figure 8

Cumulative number of confirmed COVID-19 cases in Namibia



Note. *Worldometer/Statista of 2022*

Figure 8, above shows the rise in number of cases in Namibia from March 14, 2020 the same month when the Romanian couple tested positive and still takes a closer look at the first two months of 2022 from the 15th of January to March 4, 2022. The chart indicates that Namibia began receiving more cases by the beginning of 2021 and according to The Namibian (2021),

this was the same year it received the COVID-19 vaccines. Most importantly when compared to figure 5, the cases in 2022 remain higher than the past two years.

2.7. Summary

This chapter provided a literature review shedding light on how Namibia dealt with the COVID-19 outbreak mostly in the education sector, as well as look at some statistics and see how people responded to vaccines. The complications of online learning during COVID-19 In terms of dealing with the crisis, this chapter still indicated what the ministry of education set as an alternative to continue education and the complications that came with. Knowledge seeking online Furthermore it touched on how students seek knowledge on the internet and how this action has affected them by reviewing the impact of "infodemics" on health literacy concerning COVID-19. Finally, it also provided in detail the effect of social media and influencers on student's behavioural patterns.

Chapter 3: Research Methodology

3.1. Introduction

The proceeding chapter reviews the blueprints that were followed in order to retrieve information on how social media affected the student's attitude towards COVID-19 vaccines. It is divided into five subheadings beginning with the study's research design, this emphasises the research objectives and how they guided this study. The chapter still discusses the sample and the procedure of how it was acquired. Furthermore, it provides a synopsis of the research instrument and how each component was vital in acquiring information from the participants, and the entire procedure of data collection as well as the analysis. It will then include ethical concerns of the study.

3.2. Quantitative research design

In order to collect data, this research study made use of the survey method, a non-experimental method which is under quantitative research method. This self-administered questionnaire on Google forms was distributed to UNAM Main Campus second to final year students.

3.3. Population

According to Banerjee and Chaudhury (2010): "In statistics, a population is an entire group about which some information is required to be ascertained. A statistical population need not consist only of people." According to the journal, population can still be heights, weights, haemoglobin levels, events, outcomes, so long as when we define it, we acknowledge the plain inclusion and exclusion standards. Allen (2017) also states that: "A population consists of all the objects or events of a certain type about which researchers seek knowledge or information."

3.4. Sample

“A sample is any part of the fully defined population,” (Banerjee & Chaudhury, 2010). To make accurate interpretations, the sample has to be representative of the population. A representative sample is one in which each and every member of the population has an equal and exclusive chance of being selected. This can still be referred to as a subset or a manageable size for observation selected by the researcher that is representative of the population. We can make generalizations about the population from which the sample was chosen (Allen, 2017).

A total of 100 participants were selected as a sample through random sampling which is under probability sampling method, therefore when a total of 100 questionnaires had been completed, access to the google form link was closed.

3.5. Research instrument

The study used analytical survey method to compile a questionnaire guide which included various methods such as dichotomous, multiple choice, Likert, semantic differential as well as importance rating to obtain data. The questionnaire clearly indicated the research topic, and it also explained the purpose of conducting the research and what it pursued to answer, it also promised confidentiality of the participant’s input. Furthermore, it clearly indicated to participants in case they plan to withdraw from the research. The questionnaire comprised of three sections which were;

Section A, Demography:

This consisted of items such as gender, age, and current academic year of participant. Vital for categorising the data provided into subsections when drafting out the final results.

Section B, Usage of popular social media:

The section was to collect data on student's internet experience as well as presence before and after the COVID-19 outbreak, it was also formulated to find out what kind of platforms they access on a daily basis, most importantly to find out the platforms they used during their online lessons. The section was also meant to collect data on how they rate these platforms in terms of usage.

Section C, Health literacy towards COVID-19 vaccines:

The section was formulated to reveal the presence of participants on these platforms after the COVID-19 outbreak, determining if the presence increased, decreased or remained the same. Most importantly it was meant to reveal if these particular platforms provided any information about vaccines, last but not least to also reveal if influencers shared any information about vaccines.

Section D: Elements within the social media:

This section tries to find out what exactly within social media that may have caused vaccines hesitancy to students, it also tries to find out if they follow any prominent people or figures on these social media platforms.

3.6. Procedure

With careful observation and investigation on the increased traffic of COVID vaccine information on social media, the researcher decided to take this into the field and further the investigate the effect that this information was having on students. A title was formed from the chosen topic and presented to the supervisor, after careful review the topic was approved. The researcher then compiled objectives of the study before compiling a research proposal,

then a after the approved proposal the investigation expanded and do more literature review and select a population to derive a sample from.

The investigation took into consideration Section 4 of the UNAM Research Ethics Policy (2013), when in contact with the participants, following subsection 4.1 and give them all the aspects of the study together with a clear understanding that this is a voluntary investigation in terms of participation and that they can exit anytime. The investigation still clarified within the questionnaire that any answer provided to the questions within the instrument will be treated with respect.

Data collection procedure included contacting the faculty officer of Humanities, Science and Development to obtain the total number of registered students under Bachelor of Arts in Media Studies program from 2nd to 4th year in order to obtain the population from which the sample was drawn for this research. This was accompanied with a clear explanation stating the purpose as to why this information was needed.

The distribution of questionnaires to students was made via different communication platforms such as WhatsApp, e-mail platforms, and offline cell phone messaging applications to share the link to the questionnaire on Google forms.

3.7. Data Analysis

The data analysis was conducted according to the objectives of this study. The researcher used Google forms an online based software to analyse the data collected for this study. Descriptive Statistics features of this software involving frequencies and cross tabulations was utilised therefore data collected through multiple choice components as well as dichotomous were be reported using tables, bar and as well as pie charts. The qualitative part of the data collection which involved open-ended questions were analysed descriptively through frequency

distribution which looks at the magnitude of which points occurred the most and draw a conclusion.

3.8. Ethical considerations

The researcher promised confidentiality to the participants information before taking part in the study. By taking into consideration subsection 3.7 under section three of UNAM Research Ethics Policy (2013), they were asked to give consent that does not allow the researcher to publish findings related to the study from the data they provide unless it be any malicious intentions. They were further informed that participation in this study was voluntary and no student would be penalised if they decided to not partake or withdraw from the study. Finally, the researcher swore to honour and only keep the data to this study safely in a personal cloud account for two years before disposing of it.

3.9. Summary

In this chapter the researcher discoursed the research design employed in the process of collecting and analysing data for this study, it also presented on the population as well as the sampling procedures. Furthermore, it elaborated on how the research instruments was structured and what was used to analyse and tabulate data. The chapter finally discussed ethical issues related to data collection and procedures.

Chapter 4: Data presentation

4.1 Introduction

This chapter is a presentation of the quantitative data that was collected from participants by the researcher. The chapter consists of the four sections that were presented in the Google Form questionnaire, for each question the tabulated data is simplified and presented as either a bar graphs or pie chart.

4.2 Biographical information

In this section, the participants were asked to provide biographical information such as age and gender, it also seeks to know participants' academic status.

Figure 9

Respondents' gender

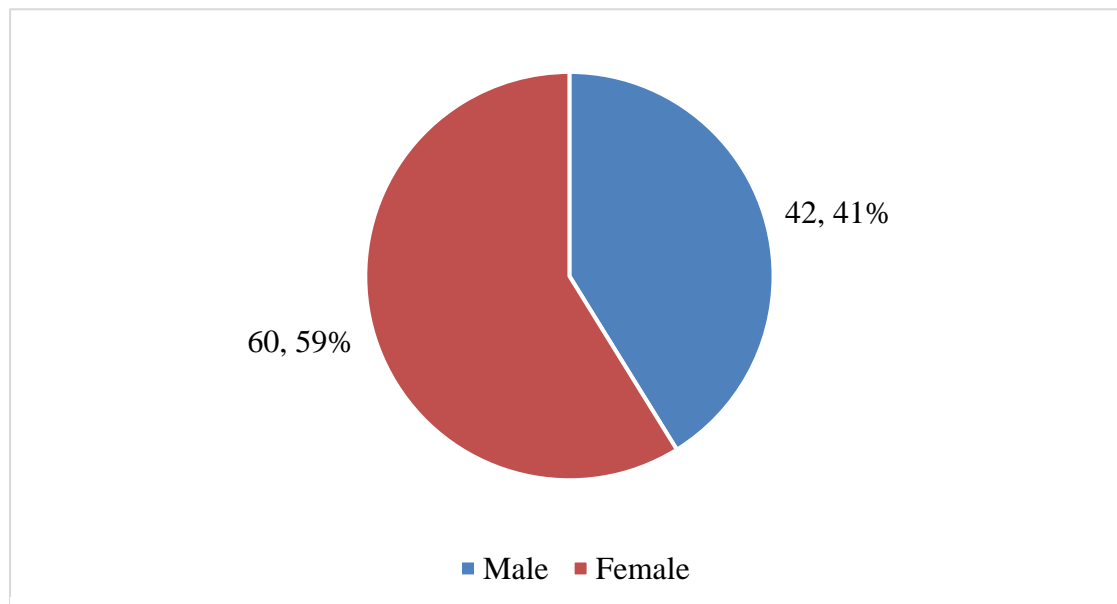


Figure 9 shows a graph that represents the participants' gender. The participants were 42.41% male and 60.59% female

Figure 10

Respondent's age

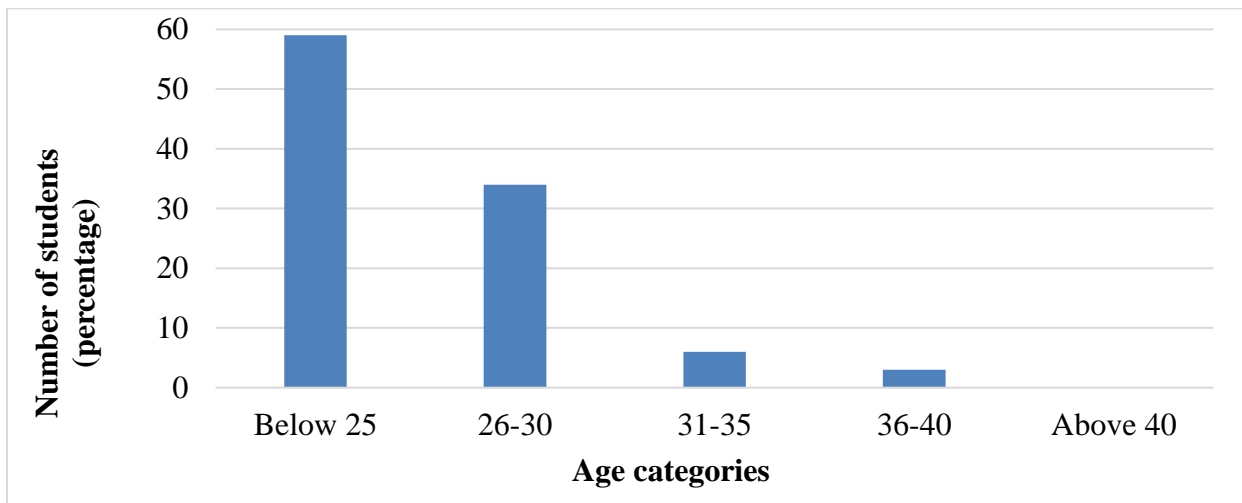


Figure 10 shows age representation of the total participants. The participants below 25 were 59%, between 26-30 were 34%, between 31-35 were 6%, between 36-40 were 3%.

Figure 11

Respondent's faculty

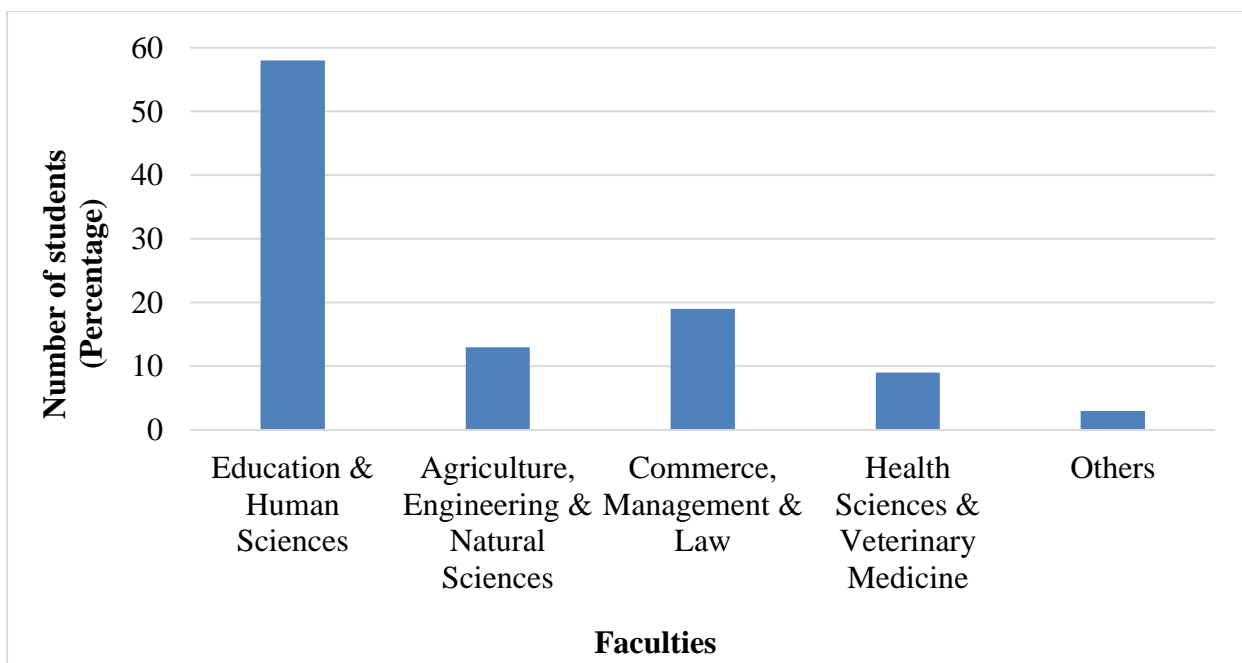


Figure 11 represents the faculty each of the respondents belong to, the graph indicates that participants from the faculty of education and human sciences were 58%, faculty of agriculture, engineering & natural sciences were 13%, faculty of commerce, Management & law were 19%, faculty of health sciences & veterinary medicine were 9% and participants from other extra schools on campus such as NBS were 3%.

Figure 12

Participant's degree of study

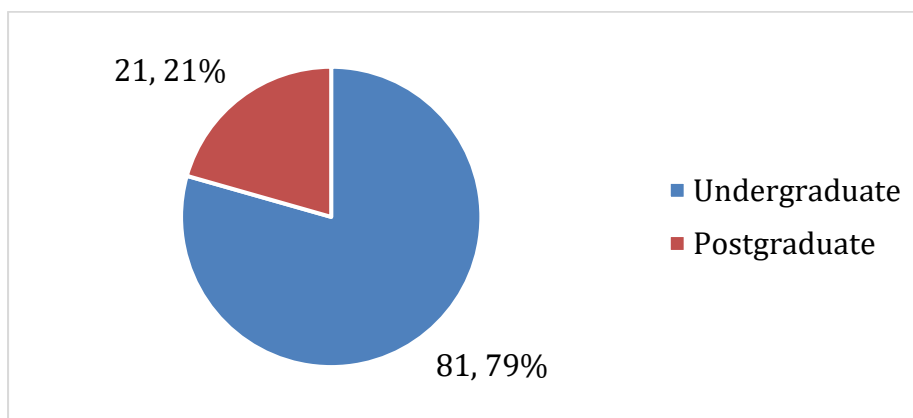


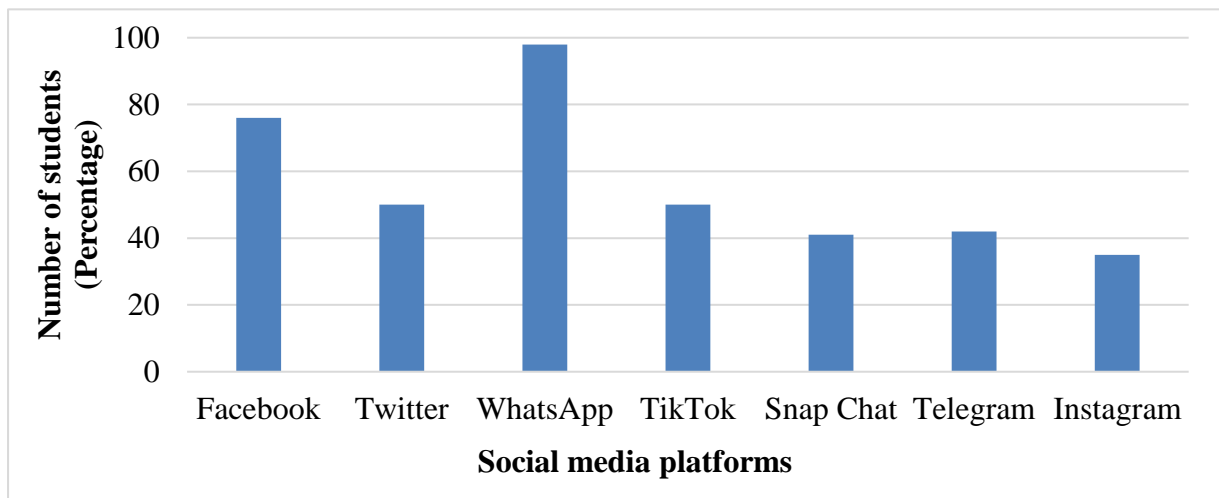
Figure 12 indicates that most of the participants were undergraduates with 81.79% while post graduates were 21.21% under degree of study.

4.3 Usage of popular social media

This section seeks to reveal what social platforms are utilized the most by participants, it also seeks to find out how often they visit these sites as well as what kind of information they really search for.

Figure 13

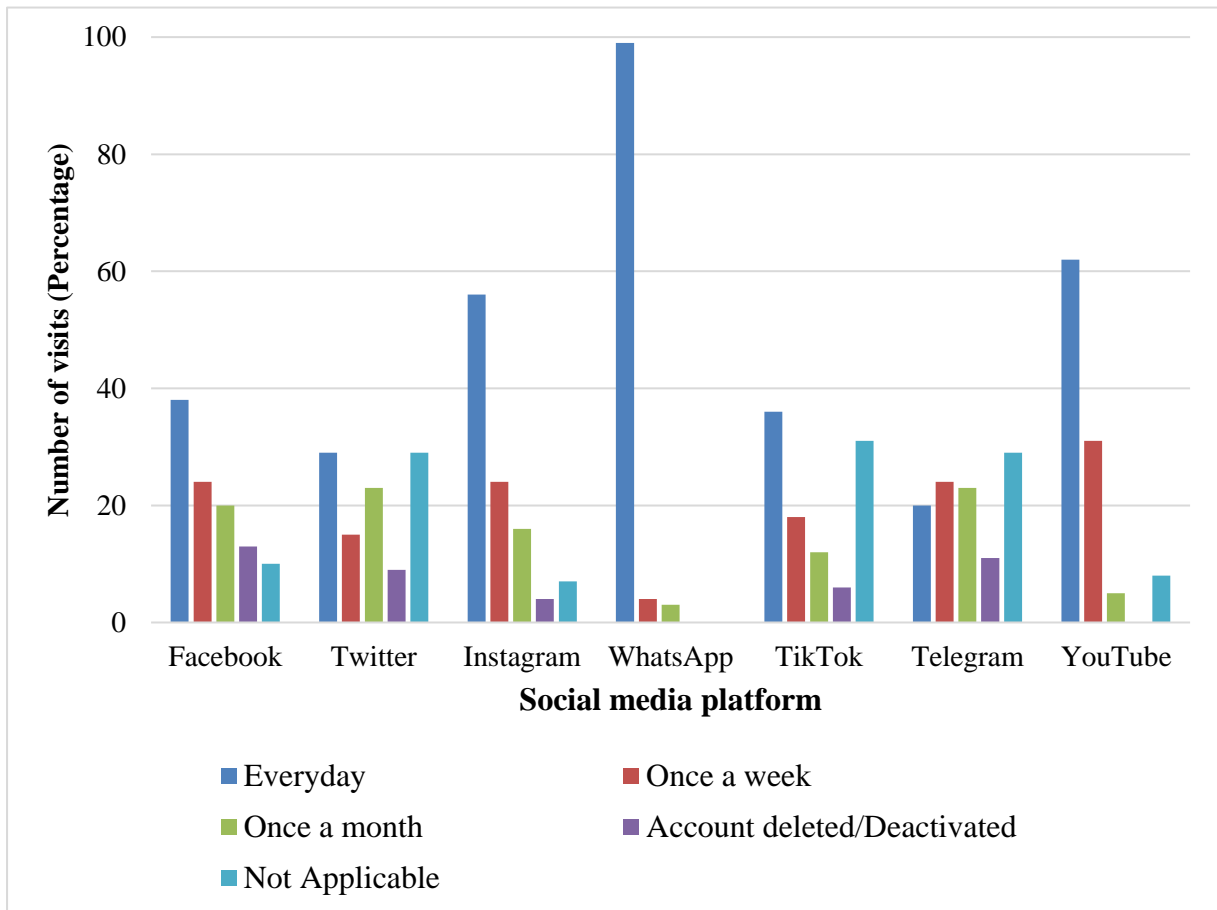
Participant's social media platforms



Participants were asked to indicate on which of the popular social media platforms they own an account, they were also asked to select more than one if applicable. Figure 13 indicates that most of the participants owned an account of WhatsApp with 98%, followed by Facebook with 76%, Twitter 50%, TikTok 50%, Telegram 42%, Snap Chat 41% and Instagram with only 35%.

Figure 14

Number of visits on social media platforms by students



Participants were asked to indicate how often they visit the platforms they chose in question

Figure 13. Figure 14 shows that most of the participants indicated that they visit WhatsApp at least once every day with 99% while Telegram received lowest number of visits in a day with 20%.

Figure 15

Information seeking online

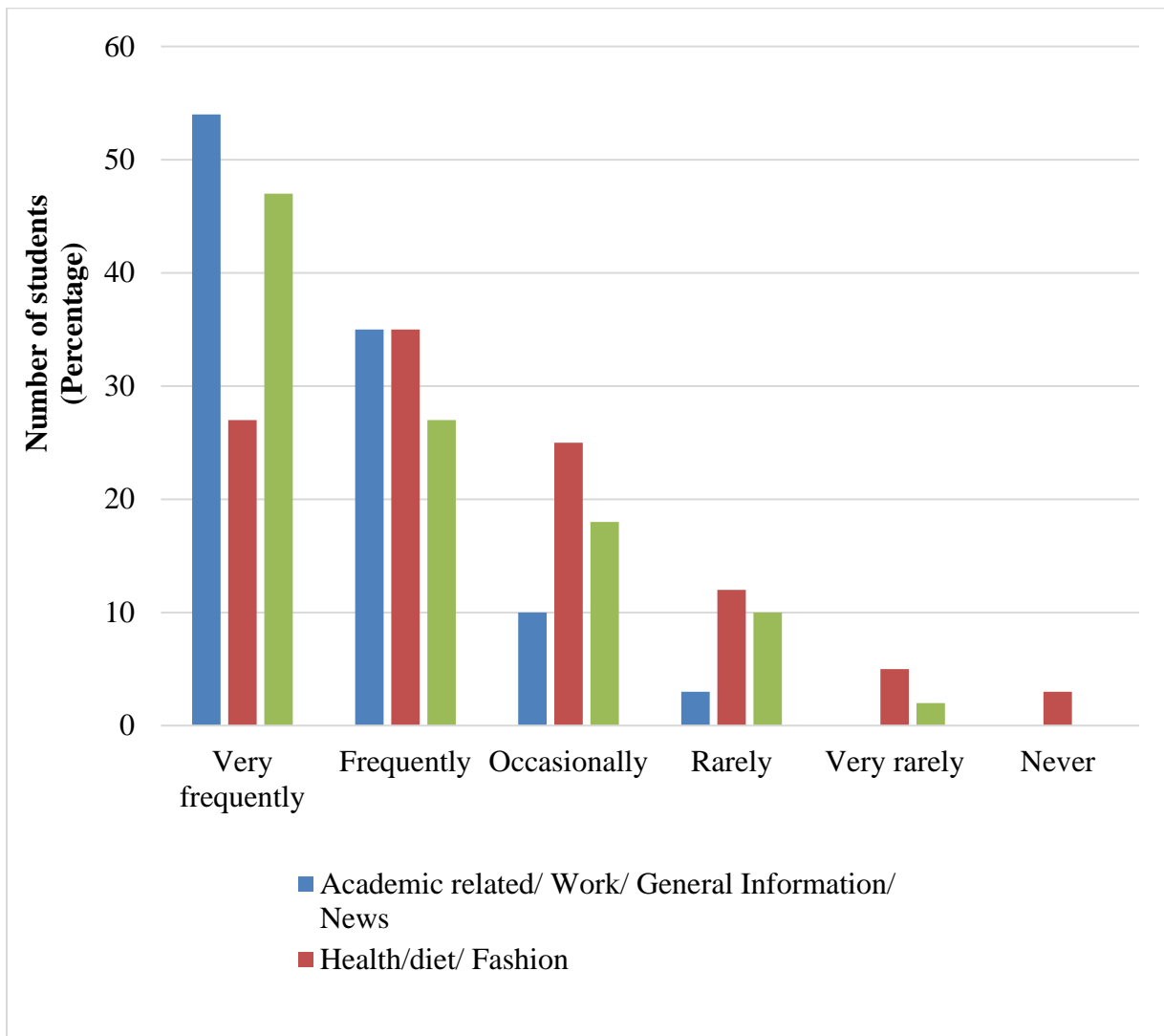


Figure 15 indicates the results from participants of the three categories of what is mostly searched for on the internet, the aim was to find out how often participants visited the internet during the COVID-19 pandemic and seek information in line with any of the three given categories. The figure indicates that most participants searched for academic related/ Work/General information and news with participants scoring 54% in ‘very frequently’ followed by Sports entertainment, Music and Film with 47%.

4.4 Health literacy towards COVID-19 vaccines

The section seeks unveil how participants got to know about the COVID-19 vaccines as well as find out how they treated the information. Furthermore it seeks to find out if this information was enough to make them consider getting vaccinated.

Figure 16

COVID-19 vaccines first awareness

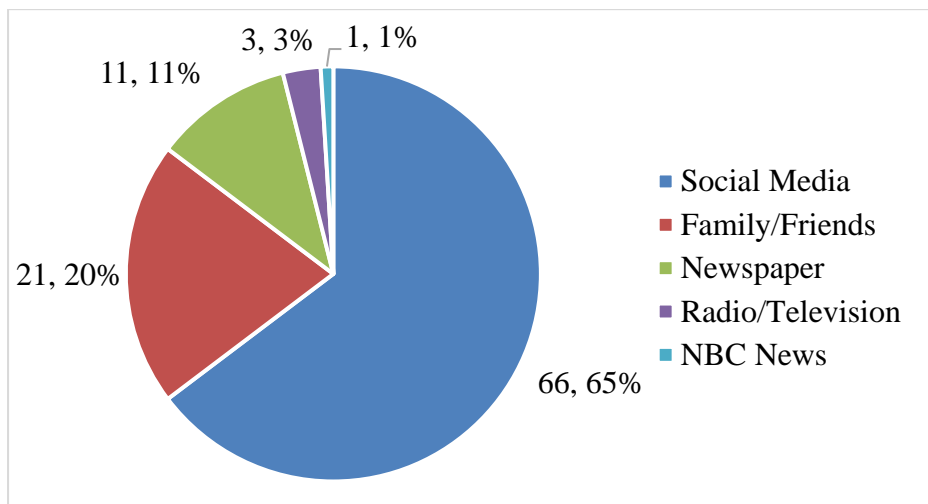
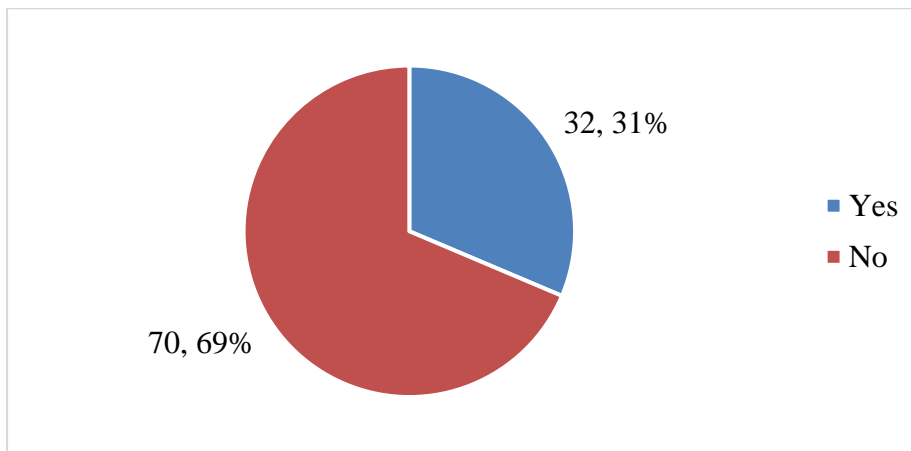


Figure 16 indicates multiple sources of information, participants were asked to indicate on which source of information they first heard about COVID-19 vaccines. 66.65% of the participants were informed through social media, 21.20% were informed through family and friends, 11.11% were informed through newspapers/journals. Only 4.4% were informed through television/radio and among this number only a 1.1% of participants were informed directly by NBC news.

Figure 17

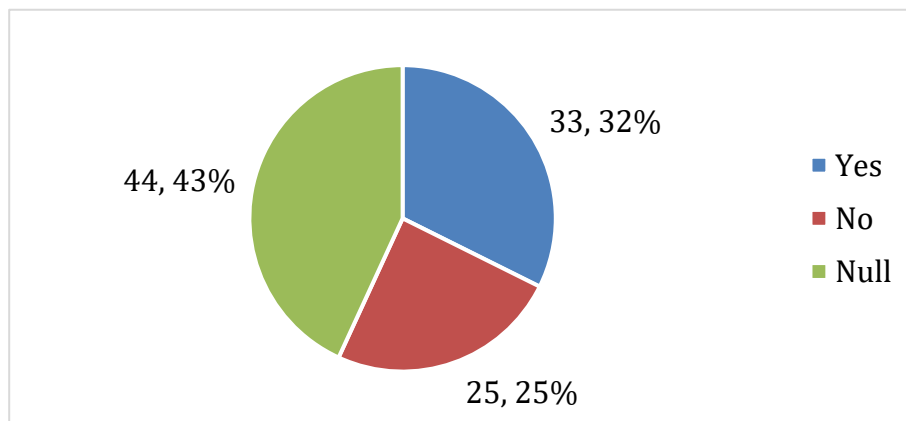
UNAM COVID-19 vaccination awareness



Participants were asked if they were aware of the COVID-19 vaccination campaign that was held on campus. Figure 17 indicates that 70.69% were not aware of UNAM’s COVID-19 vaccination campaign and only 32.31% were informed.

Figure 18

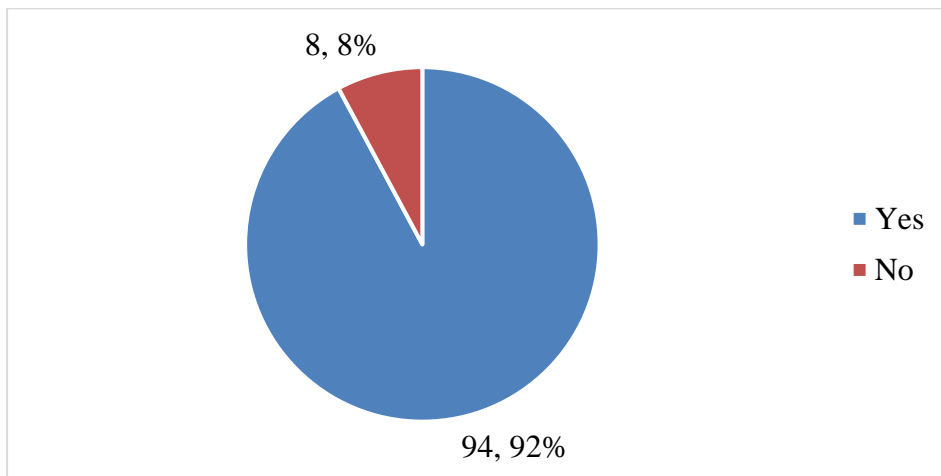
Learning of the UNAM’s COVID-19 vaccination campaign



Participants were asked if they had learnt of the UNAM’s COVID-19 vaccination campaign on social media. Figure 18 shows that 33.3% of the participants said chose ‘Yes’ while 25.3% chose ‘No.’ The remaining 44.4% chose to remain ‘Null.’

Figure 19

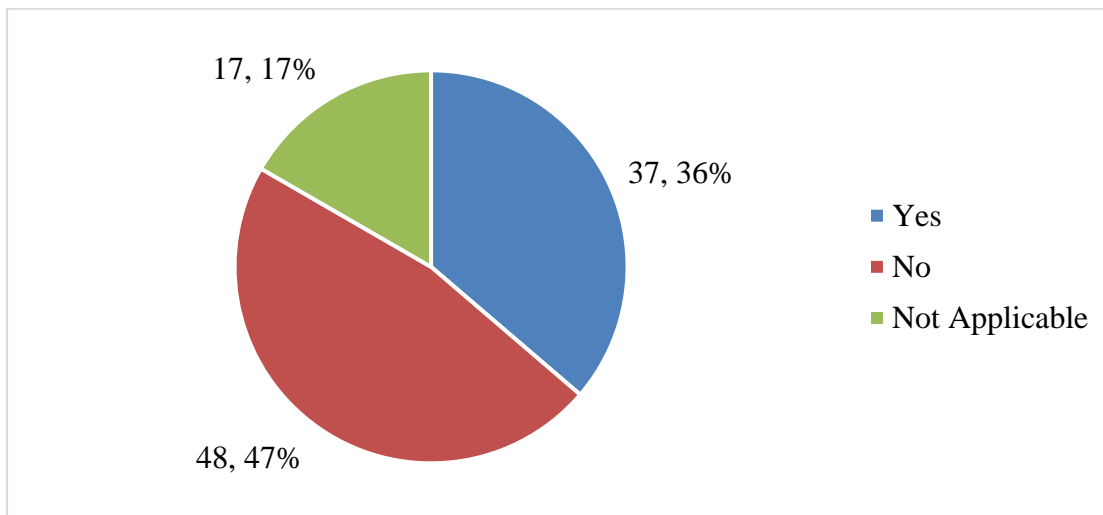
Exposure to information on other social pages about COVID-19 vaccines



Apart from UNAM's vaccination campaign, participants were asked if they were exposed to any other pages that spoke about COVID-19 vaccines on social media. Figure 19 indicates that 94.9% chose to have been exposed to other social media pages about COVID-19 vaccines and only 8.8% denied to have been exposed to these pages.

Figure 20

Participants considering vaccinated against COVI-19



Participants were asked if any of the information about COVID-19 vaccines they received was enough to make them consider getting vaccinated. Figure 20 indicates that only 37.4% were considered getting vaccinated, 48.5% were unwilling to get vaccinated and the remaining 17.2% chose not give away this information.

Figure 21

Participants’ opinion upon receiving news about COVID-19 vaccines for the first time

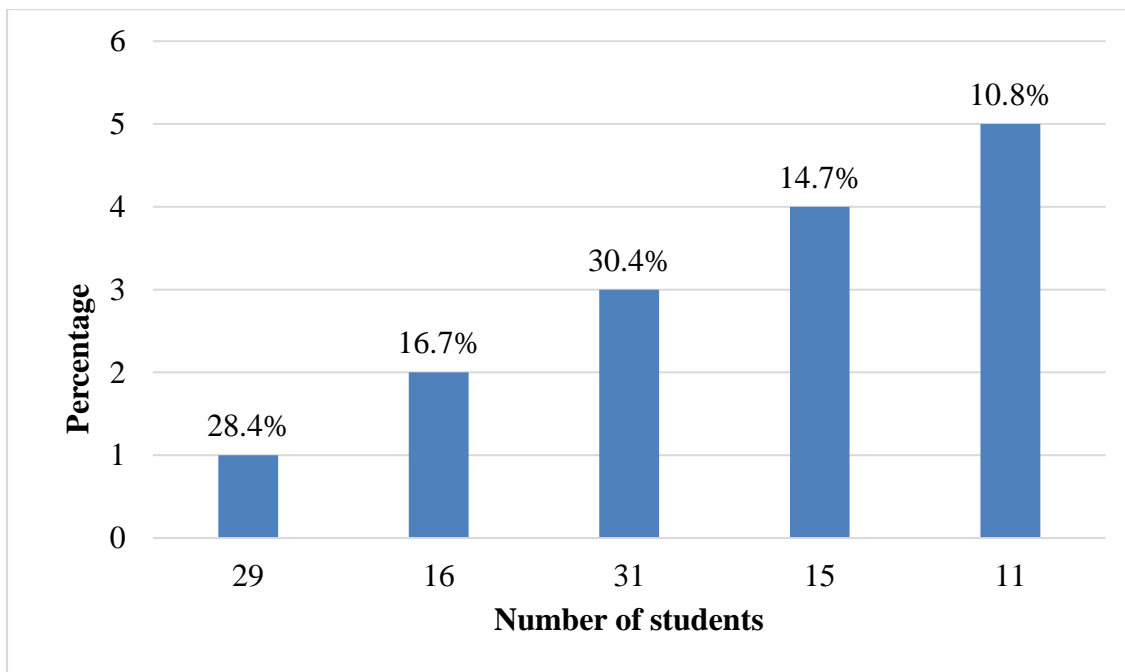
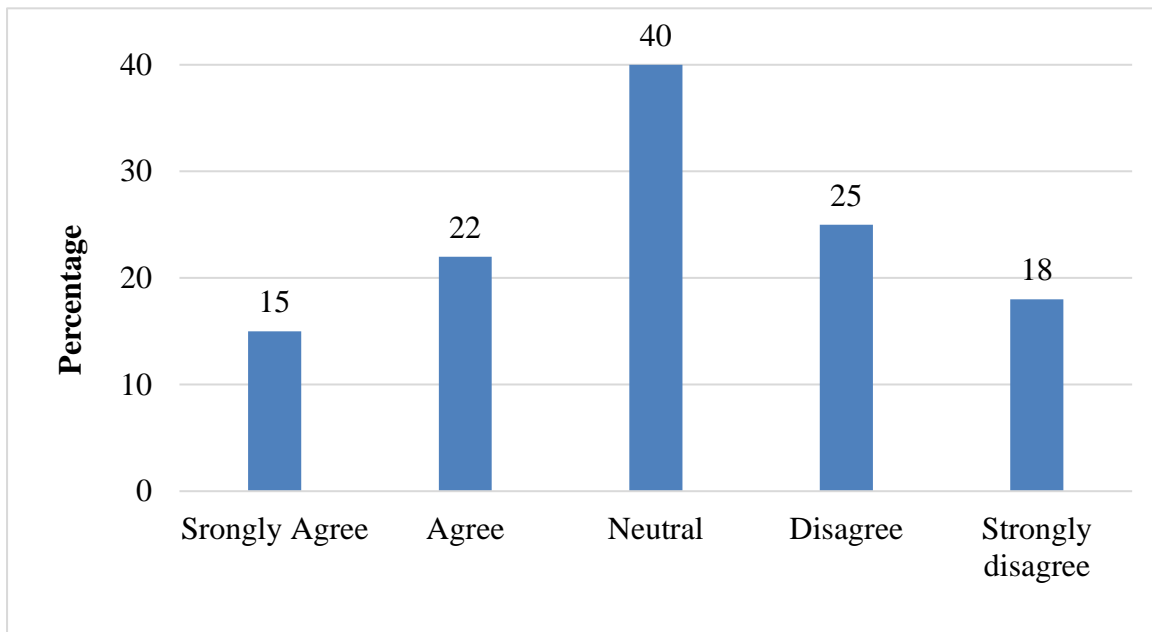


Figure 21 indicates participants’ opinions when they first received news about COVID-19 vaccines. 30.4% of the participants chose to remain neutral about the news, 28.4% of the participants felt extremely negative about the news and only 10.8% saw positivity in the news about COVID-19 vaccines. 16.7% chose to remain between being neutral and extremely negative about the news while 14.7% chose remain between neutral and extremely positive.

Figure 22

Participants opinion on COVID-19 vaccines after a while



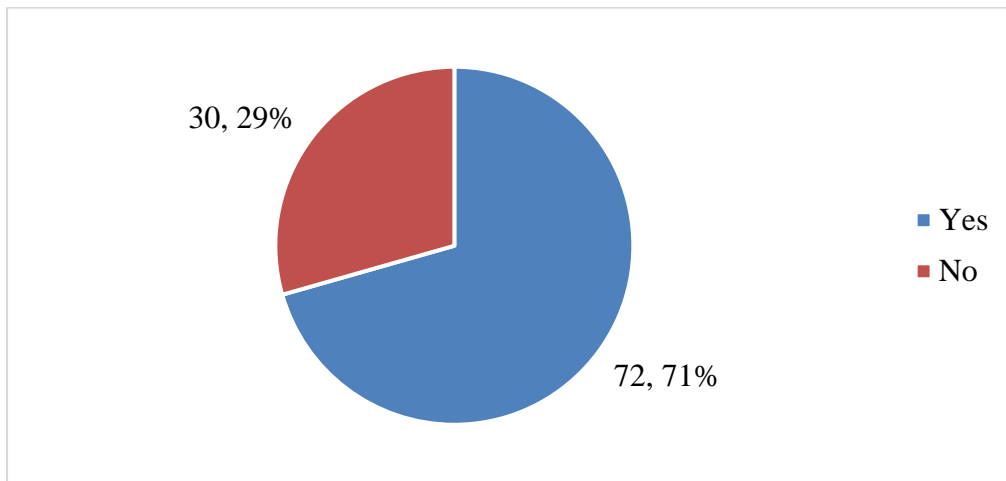
The researcher wanted to find out if participants' opinions on the Covid-19 vaccines changed over time. Figure 4.14 indicates that the majority still remained neutral with 33.3% while 15% of the participants strongly disagreed, only 12.5% strongly agreed to have their opinions towards COVID-19 vaccines changed.

4.5 Elements within the social media

The section seeks to identify the elements that informed participants on COVID-19 vaccines and influence them to react the way they did towards these vaccines.

Figure 23

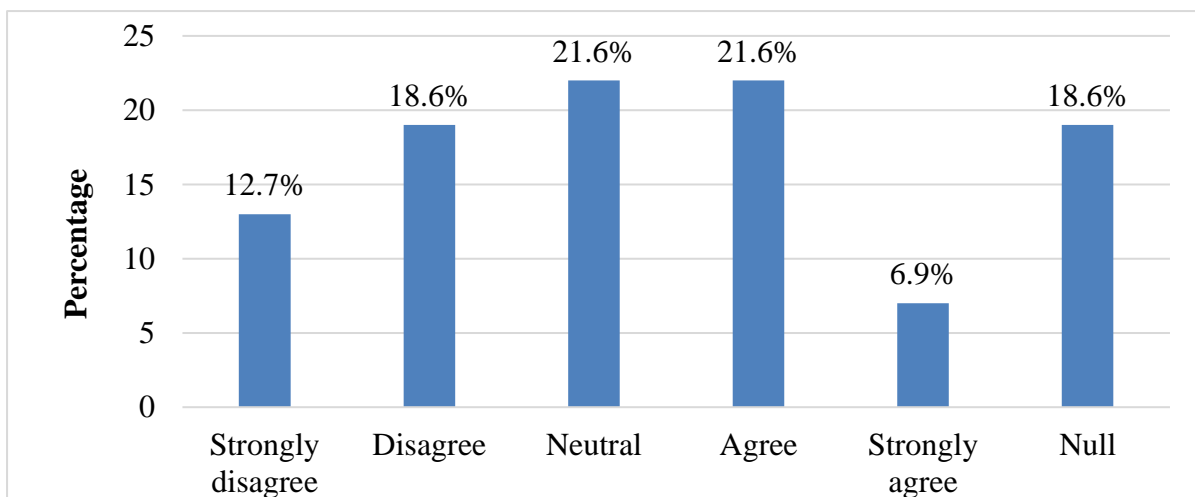
Participants following social media influencers



Participants were asked if they follow any influencers, role models or prominent people on social media. Figure 23 indicates that 72.2% agreed to following social media influencers and 30.3% indicated that they do not follow any role model or any kind of influencer on social media.

Figure 24

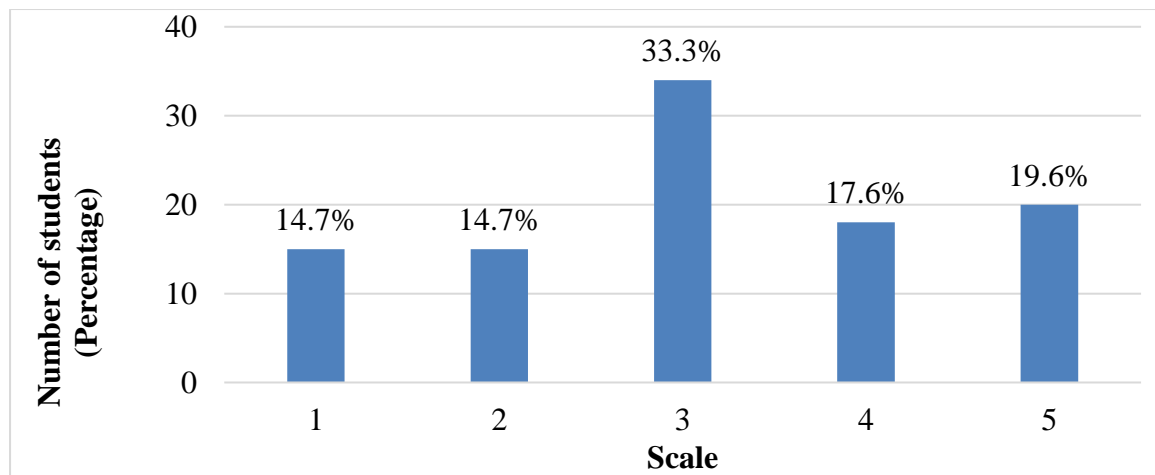
Participants informed by social media influencers about COVID-19 vaccines



Participants were asked if the influencers they follow informed them about COVID-19 vaccines. Figure 24 indicates that 21.6% agree that influencers informed them about COVID-19 vaccines while 18.6% disagreed, 12.7% of the participants strongly disagreed with only 6.9% strongly agreed. A huge number of 21.6% remained neutral and 18.6% responded null.

Figure 25

Participants' satisfaction with information about COVID-19 vaccines received from social media.



Participants were asked if they were satisfied with all the information about COVID-19 vaccines they received from all platforms they chose to visit. Figure 25 indicates that most of the participants which is 33.3% remained neutral about this information, 19.6% of participants strongly agreed to being satisfied and 17.6% simply agreed as well. 14.7% strongly disagreed, another 14.7% simply disagreed.

4.6 Summary

The chapter managed to compile the findings collected by using a Google Form questionnaire, the tabulation of the entire quantitative data was analysed using Google forms tools. The data summary was then transferred to Microsoft excel for verification and form bar

graphs and pie charts assigned to each question. Open ended questions that were given in Section B were analysed through content analysis.

Chapter 5: Discussion of Findings, Summary, Conclusions and Recommendations

5.1. Introduction

This chapter discusses the findings of a study that emanated from evidence that UNAM Main Campus students showed hesitancy towards COVID-19 due to social media influence. The chapter still discusses the conclusions and recommendations based on the findings of this study.

5.2. Discussion of findings

Looking at the findings of this research, it is now established that most of the UNAM Main Campus students have access to popular social media platforms especially those that allow the most intimate interaction such as WhatsApp, and Facebook. This supplements what was acknowledged in the literature review by Kaisara and Bwalya (2020) who refer to (Nuuyoma, Malope & Chihururu, 2020) who claimed that WhatsApp has even become the most popular social platform in Namibia. It was also found that most of those that have access to WhatsApp and Facebook visit their accounts at least once every day. Platforms such as YouTube with less privacy were the most visited but had less accounts and platforms such as Instagram, Telegram, and Twitter have a smaller audience.

During the pandemic when they visited these social platforms, participants mostly searched for academic related, work-related content as well as any trending content in general. Apart from academic or work content, UNAM Main Campus students were found to still search for entertainment content in all areas of sports, film and music. This left what the researcher predicted would be the most searched for which is health, diet or fashion related content the least searched for.

According to the literature, an article by Elbarazi et al. (2022) states that; by the first three months of 2020 social media had already published a lot of information and news reports about COVID-19 which people would refer to as social media infodemics. The findings have proved that indeed the public faced a wave of mixed news on social media as well as being influenced by this content during the pandemic. It is used to spread both negative and positive information, it can get any kind of message to an enormous audience within minutes.

According to the results of this study it was established that a significant number of the UNAM Main Campus students were informed about the COVID-19 vaccines through social media while only a few were informed through friends, family, or traditional media.

The results pointed out that even the campaign held by UNAM staff to educate and administer COVID-19 vaccines to students was only known by a few people. Furthermore, most of the few that knew about this campaign learnt about it from social media before they were still exposed to other pages that informed them about COVID-19 vaccines. With all this information, it was made clear that most of the students were still not convinced to get vaccinated due to the information they first received being negative.

The literature still indicated that one of the most effective elements within social media is the presence of influencers. A significant number of participants indicated they follow at least one influencer or role model on social media. It was found that most of these influencers spoke about COVID-19 vaccines. The opinions would often change over time but most of the UNAM Main Campus students remained unconvinced about getting vaccinated, the few that showed interest still kept their opinions towards the vaccines.

5.3. Summary of Findings

According to the literature, Scholz and Walker (2021) believed the the global health body in Africa is fund it hard to combat the spread of misinformation on the continent of 1.3 billion

people, they believed that part of the reasons was prominent people spreading false information on social platforms. This was ascertained by the results of this study that UNAM Main Campus students have access to these social media platforms, it has also been revealed that they receive most of the trending issues through these platforms. It has been proved as well that they were able to access the information about COVID-19 vaccines that had been circulating on social media. Furthermore, it has been established that the circulation of this information has altered some and reinforced in others what they already knew about COVID-19. UNAM Main Campus COVID-19 campaign received very little awareness due to lack of communications on the popular social media platforms.

5.4. Conclusions of the study

Students having access to popular social media; it was concluded that students have regular access to popular social media platforms, it was also evident that UNAM Main Campus students accessed social media platforms during the COVID-19 pandemic more often. This was the same continual access that informed most of the UNAM Main Campus students about COVID-19 vaccines.

Students' health knowledge on COVID-19 vaccines; it was also inferred that the information students received on social media was the only information needed for them to determine whether they should get vaccinated against COVID-19 or not. The findings showed that students mostly received negative.

Elements within social media that influenced students; influence from celebrities, it has also been concluded that social media influencers played a role in advocating about COVID-19 vaccines to students. It was established that their influence only solidified what students already knew about the COVID-19 vaccines and their opinion towards it. It was also concluded that social media caused a panic with the arrival of the COVID-19 vaccines.

5.5. Recommendations

UNAM should consider initiating a social media focus campaign in future to improve communication between staff and students. As much as the school is focused on communicating through the UNAM website and portal, their campaign received little notice due to not knowing how to better communicate with students. Conducting surveys that try to find out how or what platform students use the most as communications tools. This will be helping when UNAM is trying the message of any campaign across.

The use of local celebrities can prove to be vital when campaigning. The administration of vaccines was one of the biggest activities that happened during the pandemic, getting the message across that could convince the mass how safe the vaccines were was vital. Celebrity influence or prominent persons should be utilized in future as both the literature and results of this research survey have revealed, it has proven that social media influencers also hold some supremacy on how users understand certain issues.

There is a need for students to be educated on social media. The school can try to introduce a short course in each faculty that helps students differentiate between fake news and authentic news. UNAM provides courses such as Computer Literacy that teaches how to navigate on a computer, English for Academic purposes that teaches how to quote and reference in articles. The same can still be done when it comes to students learning how to choose which sources give the right information to help them cite correct data when working on assignments.

It is recommended that any educational programme, include topics on social media if not a course. The findings will also help those looking into the similar topic use this paper as a reference, not only that but it will help students choose the right information when surfing the internet for general purposes.

5.6. Summary

This chapter discusses the findings of this research, from these findings the chapter managed to summarise and draw conclusions. Furthermore, these conclusions are used to identify how the literature review connects to the findings of the survey. It also managed to identify areas specifically in communication, aspects the researcher recommends that UNAM apply when communicating to students during a crisis.

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Appendices

Appendix 1

Research instrument

Questionnaire

My name is Leavily Mayumbelo, a fourth year Bachelor of Arts in Media Studies (Honours) student at the University of Namibia. I am conducting a research study in fulfilment of the degree within the Faculty of Education and Human Sciences, School of Humanities, Society and Development. I highly request for 10 minutes of your time to assist me in completing this questionnaire. The study is titled: “The impact of social media on COVID-19 vaccine hesitancy on the University of Namibia Main Campus students.” Your participation will be extremely appreciated. If you change your mind, you are welcome to exit the survey at any point. Thank you in advance.

Instructions: Please tick ✓ in the box next to the answer of your choice or write in the space provided as the case may be.

SECTION A: Demography

a. Gender

	Male
	Female

b. Age

Below 25 years	26-30 years	31-35 years	36-40 years	Above 40

c. Faculty (If applicable)

Faculty of Education & Human Sciences	
Faculty of Agriculture, Engineering & Natural Sciences	
Faculty of Commerce, Management & Law	
Faculty of Health Sciences & Veterinary Medicine	
Others (Specify):	

d. Degree of Study

Undergraduate	
Postgraduate	

SECTION B: Usage of popular social media

e. On which of the following platforms do you own an account?

	Facebook
	Twitter
	Instagram
	WhatsApp
	TikTok
	Snap Chat

	Telegram
	Other (Specify).....

f. How frequent do you visit the social media platforms you chose in Q5?

	Everyday	Once a week	Once a month	Account deactivated/deleted
Facebook				
Twitter				
Instagram				
Instagram				
WhatsApp				
TikTok				
Snapchat				
Others (Specify):				

g. In terms of information seeking during the COVID-19 pandemic on these platforms, how often did you search for information in the given categories?

	Very frequently	Frequently	Occasionally	Rarely	Very Rarely	Never
<i>Scale</i>						

<i>Academic related/ Work/ General Information/ News</i>						
<i>Health/diet/ Fashion</i>						
<i>Sports Ent. Music/Films/ Ent. Videos</i>						
Others (Specify):						

SECTION C: Health literacy towards COVID-19 vaccines

h. How did you first hear about the COVID-19 vaccines?

	Social media
	Friends/Family
	Newspaper
	Radio/Television
	Others (Specify).....

i. Were you aware of UNAM’s COVID-19 vaccination campaign? If “NO” please skip to (Q11)

Yes	
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No	
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j. Did you learn of the UNAM's COVID-19 vaccination campaign on social media?

Yes	
No	

k. Was either of the information about COVID-19 vaccines you received enough to make you consider getting vaccinated?

Yes	
No	
Not Applicable	

l. Your opinion about COVID-19 vaccines when you first received the information was positive. Please use the scale below to indicate your response, 1 being strongly negative and 5 being strongly positive.

<i>Scale</i>	1	2	3	4	5

m. My opinion on the Covid-19 vaccine changed over time.

<i>Scale</i>	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree

SECTION D: Elements within the social media

n. Do you follow any influencers, role model or prominent persons on any social media?

Yes	
No	

If “No” please skip to (D,16)

o. The influencers, role models or prominent persons I follow informed me about the COVID-19 vaccines.

Scale	Very Frequently	Frequently	Occasionall y	Rarely	Very Rarely	Never

p. The social media platforms I chose to visit provided me with information on COVID-19 vaccines.

Scale	Very Frequently	Frequently	Occasionall y	Rarely	Very Rarely	Never

q. You are satisfied with the current information you know about the COVID-19 vaccines.

Very satisfied	Somewhat satisfied	Undecided	Somewhat dissatisfied	Very dissatisfied