

Methods and tools employed to investigate the knowledge, experiences, and attitudes towards Covid-19 vaccine: The Case of Health Professionals in Leribe, Lesotho

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Abstract: Corona Virus Disease- 19 (COVID-19) is regarded as one of the highly contagious diseases after Ebola. It affects the respiratory organs. Different strains of COVID-19 are transmitted from one person to the other if precautionary measures are not put in place. The rate at which people get sick depends on the immune system of individuals, some people can be moderately sick, others can be very sick while many can die. Several countries responded differently to COVID-19 pandemic; The response of the Lesotho government was proactive in which a state of emergency was declared before any positive case of COVID-19 was confirmed. Lesotho's approach was two-pronged. Firstly, the government used section 23 of the Constitution to declare a state of emergency which became into effect from 18 March 2020. Secondly, sections 3 and 15 of the Disaster Management Act, 1997 was applied and became effective from 29 April to 28 October 2020. While the government of Lesotho seem to have acted swiftly to protect the lives of its citizens and everyone who at that time was in Lesotho, there were few people who ignored the stipulated legal and institutional frameworks and violated such rules and principles. The article concludes by recommending that to avoid similar challenges in the future, the existing legal and institutional frameworks must be strengthened. The COVID-19 pandemic has been a worldwide public health challenge since 2019. The major recommended precautionary measure to prevent the spread of COVID-19 from one person to the other is taking the COVID-19 prioritising the health care professionals as the front-liners in the health sector. This is considered a priority by all health authorities globally to achieve herd immunity against COVID-19 pandemic. However, the health care professionals' knowledge, experience, and attitude towards the vaccine is very important to promote its acceptance to the rest of the community members, and yet, COVID-19 vaccine acceptance among health workers has been low, due to misconceptions circulating on social media platforms and social gatherings about the COVID-19 vaccine. Therefore, most people including the healthcare workers have been reluctant to get vaccinated. The aim of this study was to determine the knowledge, experiences, and attitudes of the health professionals towards Covid-19 vaccines in Leribe district, Lesotho. This is an observational, cross-sectional quantitative study conducted using a non-probability convenience sampling technique. Self-administered questionnaire with closed-ended questions was used to collect data from the participants on their knowledge, experiences, and attitudes towards COVID-19 vaccine. There were 195 participants who were the staff members of the district's hospital and four clinics in Leribe district in Lesotho. The collected quantitative data was recorded on a spread sheet and analysed using Statistical Package for Social Sciences (SPSS) version 29. Descriptive frequencies were run to quantify the knowledge, experience, and attitudes towards COVID-19 vaccine. Cross tabulation analysis was conducted to determine association between the variables, knowledge, experience, and attitudes. Chi-Square tests and P-values were conducted to draw conclusions about the significance of data.

Keywords: attitude, COVID-19, experience, health professionals, knowledge, vaccine

Introduction

Coronavirus is a virus that is known to have the ability to cause diseases such as the common cold severe acute respiratory syndrome (SARS), and Middle East respiratory syndrome (MERS) [1]. There was a disease outbreak caused by a new coronavirus identified in 2019, with its origin traced back to China. This virus is known as severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), and it is known to cause the disease called coronavirus disease 2019 (COVID-19) [1]. The COVID-19 outbreak was declared a pandemic by the World Health Organization in 2020. This disease has spread to all the countries of the world, and as of February 20, 2021, infected more than 111 million people and claimed more than 2.4 million innocent lives [2]. The emergence of COVID-19 has had a devastating effect on global health systems with a ripple impact on every aspect of human life [3]. In the absence of a proven treatment or medications, governments worldwide implemented measures such as a border closures, travel bans, and quarantines to curb the spread of the virus, leading to a significant economic downturn. [2]. According to the World Health Organization (WHO, 2022), there should be equitable access to a COVID-19 vaccine. The priority should be the healthcare workers in order to alleviate the public health and economic impact of the disease.

In Sub-Saharan Africa, like other continents, health professionals were prioritised for vaccination against COVID-19 infections. However, COVID-19 vaccine acceptance amongst healthcare workers has been low. Cultural beliefs and practices have resulted in additional pressure on already strained health systems characterised by poor health outcomes with high mortality rates linked to a triple burden of a disease like Tuberculosis, Human Immunodeficiency Virus, and non-communicable diseases [4]. The availability of COVID-19 vaccines has presented countries with a unique opportunity in the COVID-19 response and the primary effect of reducing disease burden. Widespread vaccination allowed countries to lift previously imposed restrictions. There has been global competition to procure COVID-19 vaccines, and African countries have been substantially less successful than richer countries in securing the supplies [4]. On the third of March 2021, Lesotho received its first batch of COVID-19 vaccines. The first batch of 36,000 doses of the COVID-19 vaccine arrived in Lesotho via the COVAX facility [5]. After a year of disruptions due to the COVID-19 pandemic, with more than 10,000 Basotho infected with the virus, almost 300 lives lost, and hundreds of thousands of Basotho families affected in countless ways, the path to recovery for Lesotho could begin with the arrival of a vaccine for COVID-19 [5].

Lesotho is a landlocked country in Southern Africa that is surrounded by South Africa.

The country covers an area of about 30,000 km and had an estimated population of 2,203,821 in 2016 [6]. Lesotho remained vulnerable to the COVID-19 pandemic after emerging from a second wave of infections at the start of 2021 [7]. While the country launched a timely national response since the first case of COVID-19 was identified in May 2020, Lesotho, like the neighbouring countries, experienced a large resurgence of infections in the latter part of 2020. This resurgence accelerated from the end of December 2020 and surpassed previous levels in the country. As of March 28, 2021, there have been 10,2021 confirmed cases and 315 deaths because of COVID-19 [7].

This virus has been overwhelming and devastating throughout the world, leading to challenges for people, especially healthcare professionals, since they are more prone to being in direct contact with infected patients and, therefore, at high risk of being infected and dying [8]. This pandemic has affected health professionals both psychologically and physically. They have had to isolate from family members and co-workers, fearing the transmission of the disease and the risk of re-infection. Therefore, burnout has been a major challenge in health facilities due to emotional exhaustion, low personal accomplishment, and depersonalisation. To protect health professionals from infection as they care for the infected patients, they should, amongst other protective measures, be vaccinated against COVID-19.

The vaccination programme started on the tenth of March 2021 and was guided by the National Deployment and Vaccination Plan (NDVP). The vaccination priority was initially given to healthcare professionals and frontline workers, followed by individuals with comorbidities and the elderly. Thereafter, the programme delivered the vaccinations nationwide to those willing to get vaccinated, with health professionals maintaining a top position on the list due to their frontline role in the fight against COVID-19, exposing them to a higher risk of contracting the disease [9]. The NDVP programme focused predominantly on districts with high reported prevalence of COVID-19 namely, Maseru (the capital city), Leribe, and Butha-Buthe where there were reports of high covid-19 infection prevalence. The 430,000 people who were first vaccinated included the health professionals who comprised less than 3% of the country's entire 2.1 million people [10]. According to the Ministry of Health in Lesotho, there might be fear or refusal of vaccination due to myths, misinformation, and widespread misconception [11]. The purpose of this study is to identify the knowledge, experiences, and attitudes towards the COVID-19 vaccine amongst the health professionals in the Leribe District in Lesotho. This study added value to the health system as there might be interventions

implemented to the health system so that people would understand and have a better attitude towards the vaccine, which helps to improve life. The study's results may help the policy and regulation makers develop new policies in the country to improve and minimise the COVID-19 spread by promoting training and education to the community and disregarding fake news about COVID-19 and its vaccine. This study may also be used as an information baseline for researchers.

Literature Review

COVID-19 was first identified in China by the end of December 2019, and this virus (COVID-19) has spread to almost every country across the globe [12]. In about seven months, the spread of the virus has covered over 215 countries and regions [12]. By 11 November 2020, 52 million people had tested positive for this virus, and 1.3 million had died because of COVID-19 since the outbreak. Most countries put in place mitigating interventions, known as non-pharmaceutical interventions. These include the implementation of public hygiene at an unprecedented scale, testing and contact tracing, social distancing, and case isolation [12]. However, the hope for the management of this virus was based on the widespread vaccination against COVID-19, starting with the healthcare workers. [13]. There has been a large global variability in COVID-19 vaccine acceptance. Factors such as age, level of education, profession (especially amongst healthcare professionals), and previous influenza vaccination history positively influenced COVID-19 vaccine acceptance amongst healthcare workers [14]. Conversely, concerns about vaccine safety and effectiveness, distrust in the government and apprehension about the rapid development of the vaccine have been the main causes of vaccine hesitancy amongst healthcare workers [14]. In June 2020, the reported COVID-19 cases in South Africa had increased to 251,866, with deaths reaching 6,769. Across nearly 55 African countries, the number of people who had recovered from the infection was 114,308, constituting approximately 3.2% of all incidents reported around the world [15]. Amongst these African countries, five account for 63% of all these cases, including South Africa at 34%, Egypt at 16%, Nigeria at 6%, Ghana at 4% and Cameroon at 3% [15]. The total confirmed cases and deaths were estimated to be between 173,607 and 178,476 in South Africa [16]. In African countries, studies have shown a generally low acceptance of the COVID-19 vaccine amongst healthcare professionals [17]. The major reasons for hesitancy include vaccine safety, side effects, short durations of clinical trials and efficacy and effectiveness [17]. In Nigeria the hesitancy to accept the COVID-19 vaccine was mainly due to safety concerns and negative information about the vaccine on social media [18]. Towards the end of 2020, Lesotho, along with neighboring countries, witnessed a significant resurgence of infections. The number of infections escalated rapidly, surpassing previous levels in the country. There have been 10,2021 confirmed cases and 315 deaths because of COVID-19 as of March 28, 2021 [8]. However, COVID-19 and related deaths have dropped drastically in 2022 compared to 2021; this is believed to be due to vaccination and COVID-19 prevention precautions [8].

Relationship Between Demographics and Knowledge of COVID-19 and its Vaccine

The outbreak of COVID-19 has affected the whole world, but countries and areas were affected differently, considering the severity of individual outbreaks [19]. In addition to geographical variations, both within and between states, adverse outcomes among those infected are likely. These outcomes are reported to be associated with individual factors such as age, gender, race or ethnicity, and comorbidities or underlying health conditions. Besides this inter- and intrastate geographical variability, there is a likelihood of adverse outcomes amongst those infected, which is reported to be associated with an individual's age, gender, race or ethnicity, and comorbidities or underlying health conditions [19]. An estimated 22% of the global population and 28% of the US population have one or more underlying conditions that increase the risk of severe outcomes from COVID-19 [19]. According to the United Nations Lesotho, 2022, the healthcare workers in the urban areas in Lesotho are well informed about the COVID-19 Vaccine compared to those working in the rural areas due to a lack of resources.

The Socio-Economic Factors Affecting the spread of COVID-19

According to [6], the COVID-19 crisis has been harshest on already vulnerable groups of people globally [20]. In most African countries, including South Africa, socio-economic inequalities influenced access to healthcare facilities and COVID-19 relief during the COVID-19 pandemic. Healthcare workers from disadvantaged communities, particularly those in South Africa and Lesotho, faced challenges in adhering to COVID-19 behavioural measures implemented by the government to contain the spread of the virus. Socio-economic inequalities, such as resources shortages and delays in vaccination, further impacted their ability to comply with these measures. [20].

Hesitancy towards COVID-19 and COVID-19 vaccine

It has been two years since COVID-19 was identified, and since then, there has been a change in terms of knowledge and management of the virus worldwide [13]. Personal perceptions of health and

healthcare access, in addition to reported news consumption, may give rise to vaccine hesitancy amongst healthcare workers [21]. Perceived risks, beliefs, knowledge, and safety concerns contribute to COVID-19 vaccine hesitancy amongst healthcare workers. Perceived vaccine safety and adequacy are intricately interrelated [21]. Some healthcare workers are hesitant to get vaccinated due to misconceptions about how vaccines work, in conjunction with apparently inconsistent information about the requirements for producing a safe and effective COVID-19 vaccine [21]. However, education about the vaccine, trust in scientists and medical professionals and confidence in health institutions may enhance healthcare workers' acceptance of vaccines and reduce their risk perception regarding vaccination [21].

The attitudes towards the COVID-19 vaccine

Some healthcare workers may be anxious about the COVID-19 vaccine or fear the injection and its consequences. In contrast, others may regard COVID-19 vaccination as a mechanism towards reducing social isolation and despondency [21]. Other healthcare workers do not believe in vaccinating against COVID-19, viewing it as an unfamiliar, possibly man-made disease [22].

Practices and beliefs towards the COVID-19 vaccine

Most healthcare workers in Lesotho, like in other African countries, do not believe in the COVID-19 vaccination [4]. Misinformation and myths surrounding COVID-19 infection and vaccines are prevalent in Lesotho, as revealed by recent interviews with approximately 500 health workers. Over 85% reported widespread misconceptions due to, amongst other things, fake news. [4].

The experiences towards COVID-19 and its vaccine

Most healthcare workers worldwide have experienced minor to moderate side effects of the vaccines, such as mild headaches, fever and chills, injection site swelling, aches and pains, and feeling unwell [23]. An allergy to food and a history of eczema and sensitive skin was associated with a skin reaction not at the injection site [23]. The side effects experienced after the Pfizer-BioNTech COVID-19 vaccine were generally limited and mild, with no anaphylaxis reported [23]. Most healthcare workers have experienced the following symptoms post-COVID-19 vaccination: mild to severe headaches, fatigue, general body malaise and injection site swelling, which led to the hesitancy of some healthcare workers to vaccinate [24].

Maryland Health Centre



Figure 1: Leribe Map: [7]

Methods and Tools

Study Population and Sample

Study population

The study population included 210 health professionals in Motebang Hospital and 120 health professionals from the neighboring clinics such as St Margaret Clinic, Maryland Clinic, Holy Trinity, and St Monica Clinic, totaling 330 professionals in Leribe district. The expected outcome of interest is a complete knowledge and understanding of

COVID-19 infection and the COVID-19 vaccine.

Sample size

The study population included 330 health professionals in the Leribe district. The expected outcome of interest was a full knowledge and understanding of COVID-19 infection and the COVID-19 vaccine. The sample size was calculated using EPINFO version 7.2 (Centres for Disease Control and Prevention, Atlanta, USA). The sample size was determined using a two-sided confidence interval of 95% and a power of 80% for a cluster of 1. After adding 25% contingency for multivariate data analysis, the sample size was $178+44 = 222$. Therefore, the maximum possible sample size estimate using the EPINFO 7.2 version was 222.

Table 1: Sample estimation Using EPINFO 7.

StatCalc - Sample Size and Power

Population survey or descriptive study
For simple random sampling, leave design effect and clusters equal to 1.

Parameter	Value	Confidence Level	Cluster Size	Total Sample
Population size:	330	80%	110	110
Expected frequency:	50%	90%	149	149
Acceptable Margin of Error:	5%	95%	178	178
		97%	194	194
Design effect:	1.0	99%	220	220
		99.9%	253	253
Clusters:	1	99.99%	271	271

Sampling strategy

The sampling strategy identified for this study was a simple random sampling, whereby all the population subjects had an equal opportunity to be selected. This strategy was beneficial because any differences between the sample and the population from which the sample was drawn were not systematic. For several reasons, this was the most typical approach for selecting a sample from a population. In terms of reliability in representing a population's demographics, this approach was widely considered the gold standard [25]. A list of all the professional health workers working in the Leribe district in Lesotho was obtained from the Department of Health Statistics office. Their names were written on different pieces of paper and placed in a box. The researcher then randomly picked one piece of paper from the box and noted the name on the paper to be included in the sample. The selected piece of paper was then discarded. This process was repeated until the desired sample size for the study was met. All these papers were destroyed after the sample size had been reached to keep the subjects anonymous in the dataset. This strategy was used because it was cost-effective and easy to conduct, and there was minimal data bias. In cases where the person chosen from the box refused to participate in the study, the researcher chose another person to replace the participant.

Inclusion criteria

The inclusion criteria are defined [26] as the key features of the target population used by the researcher to answer the research question. In this study, the included participants were health professionals in the Leribe district who had received the COVID-19 vaccine and those who had not taken the vaccine. Included were all those who have tested positive as well as those who have tested negative for COVID-19. The participants included both male and female health professionals in the district and were 18 years and older to give consent. Participants were under 65 years of age as they were within the working class.

Exclusion criteria

Exclusion criteria are defined by [26] as features of the potential study participants who meet the inclusion criteria but present with additional characteristics that could interfere with the success of the study or increase their risk for an unfavourable outcome. In this study, therefore, the excluded participants were those who were working as health professionals but were below the age of 18 as they were unable to give consent and those who were above 65 years as they were beyond the working class. Additionally, those who were admitted to hospitals due to COVID-19 and its complications were excluded from the study.

Data Collection Procedure

A self-administered questionnaire with closed-ended questions was used to collect the quantitative research data. The questionnaire method of data collection was advantageous because it was cost-effective, convenient, and time-cautious and made it easy to analyse the data. The questionnaire consisted of standard, pre-set questions, and pre-coded answers, and it collected data which answered the research questions and objectives. The variables being researched were made to form a concept that was used to form a measuring tool. These questionnaires were handed directly to the participants who had consented. There was a preceding meeting with all managers of the professional institutions (hospitals, clinics) to explain the rationale of the study and plead for the study buy-in. The researcher scheduled the time in June 2023 to visit the study areas and handed in the questionnaires and the research consent forms directly to the participants.

The researcher collected the completed questionnaires from the participants. Participants who did not submit their questionnaires by the due date were also followed up and encouraged to do so. Five alternatives on a five-point Likert scale ranging from "strongly agree" to "strongly disagree" were provided for respondents to select from during the survey. Participants were asked to rate how much they agreed or disagreed with a given statement. During the questionnaire delivery, the researcher explained the aim and objectives of the study to gain their cooperation. The consented participants were given enough time to complete the questionnaires and were allowed to contact the researcher to collect the answered questionnaires at the participants' convenient time for those who were not available for one-on-one interviews.

Data Analysis

The questions will be checked for errors and accuracy before being captured and after being captured each variable will be checked for unusual values. The Statistical Package for Social Sciences (SPSS) version 27 software will be used to capture collected data for analysis using the SPSS analysis fields [27]. Data will be categorized and coded. Summarized statistics, frequencies, and measures of central tendency will be included. Analyzed data will be presented in graphs and tables. Analysis plan for each objective is as follows: According to [27], data analysis is done to organize, reduce and add meaning to the data collected. They further elaborate that data analysis should be carried out concurrently with the data collection process. The IBM SPSS version 29.0 was used in this study to prepare and analyze the quantitative data collected. The questionnaires were collected on variable knowledge and attitudes and then checked for accuracy, completeness, cleanliness, and accuracy. Then, data coding was conducted to put data in categories and to facilitate data entry into statistical software. The IBM SPSS software version 29.0 was used to enter data. The multiple variables analysis was used to determine the association between the level of knowledge and attitudes towards the COVID-19 vaccine and the rate of spread of COVID-19 infection amongst the health professional workers in Lesotho. Coding was used for easy analysis, and data was presented in frequency tables, bar charts and graphs using SPSS. Findings from the data analysis were then discussed.

Objective 1: To identify the experiences that the health professionals have had with the COVID-19 vaccine from 2020-2022. The number of cases was correlated with a linear combination of the cases and the experiences of the COVID-19 vaccine using SPSS, and the results were reviewed and presented in frequency tables.

Objective 2: To assess the knowledge of COVID-19 and the COVID-19 vaccine amongst professional workers in

Lesotho in 2021. The relationship between the spread of COVID-19 infection and the level of knowledge about the virus and the vaccine was gathered through the questionnaires to identify the common answers that may have impacted the increased COVID-19 cases in Lesotho. Analysis was done using chi-square (crosstabs).

Objective 3: To discover the relationship between the attitudes amongst health professionals towards COVID-19 vaccines and the rate of spread of COVID-19 in Lesotho. The attitude was analysed using multinomial regression with the rate of spread of COVID-19 as the dependent variable. Analysis was done using chi-square (crosstabs)

Validity And Reliability

Validity

The term "validity" defines how well a measurement tool measures the target variable [28]. The data collection instrument was developed and designed to measure the attitudes, knowledge, and experiences towards the COVID-19 vaccine amongst the professional workers in Lesotho. The instrument was designed in a way that it could collect data necessary to answer all the research questions. The questions were asked in simple English and were short, clear, and straightforward. The response options were mutually exclusive and definitive and ensured that there was no misinterpretation of the questions. The questions were presented logically, from the least sensitive to the more complex and specific ones. The questionnaire entailed clear instructions and directions on how to answer the questions. The questions were presented and arranged in such a way that the question's answer was not directly related to the previous questions to prevent bias. In addition, the questionnaire was necessary for accurate evaluation of the issues under investigation. The experiment was considered successful because its results conformed to the standards expected of scientific inquiry.

Reliability

The consistent appearance of the same values in the results indicates reliability [28]. The questionnaire contained non-ambiguous questions written in a simple language in English and South Sesotho for the participants to understand the instructions and the questions easily. The questionnaire was evaluated to assess the appropriateness and feasibility of the questions to the participants. The questionnaire was piloted at the Dr Knight clinic in Hlotse, which is the neighbouring clinic to those in the main research study. The questionnaire provided similar results from the Dr Knight clinic, confirming the reliability of the questionnaire or the data collection instrument. The participants for the pilot study were not part of the main study. The reliability of a researcher's findings depends on whether they are consistent, stable, and reproducible in similar but different contexts. To calculate interrater reliability, several experts independently measured or observed the same sample. Finally, all the advisors gave similar ratings. This test had a high level of inter-rater reliability because of the high correlation between their results.

Ethical Considerations

This research title for this study was submitted to the Departmental research committee (DRC)- Department of Environmental Health for approval. The research proposal was approved by the following committees at the university of Johannesburg: Departmental research committee; Higher Degrees Committee and Research ethics committee for review and approval. This study is considered as non-clinical research because it does not deal with hospital-admitted patients, their records, or their biological lab samples. The authorisation to carry out the study was applied for from the Research and Ethics Unit of the Ministry of Health and Social Welfare in Lesotho. The following ethics were considered in this study. **Access to participation and document record:** Ethical approval to conduct a study amongst the professionals at their workplaces is crucial and was applied for. An application letter was written and sent to the Lesotho Ministry of Health and Social Welfare Research Unit to obtain approval. **informed consent:** Obtaining a person's informed consent through issuing a consent form for a research study is an important aspect of research, and it requires clear communication between the researcher and the study subjects. This practice acknowledges the participant's human rights, self-worth, and fundamental right to choose whether to participate in the study [29]. In this study, the researcher issued a consent form to the research participants. **Right to equity, human dignity, and protection against harm:** All participants were classified as professional health workers and not according to their gender, age, or position at work. The participants will not be exposed to any form of harm or danger during or after the study. The participants will be allowed to spend between thirty and forty minutes to answer the questionnaire. **Right to confidentiality, anonymity, and privacy:** The identities of the participants were kept anonymous to allow the participants to be able to express their thoughts freely. The questionnaires were identified with a unique identification code, and this was done to allow the participants' responses to be handled with confidentiality by the researcher. The answers were not known to other participants. The questionnaires that were completed were collected, and they were kept safe. The researcher and the researcher's supervisor were the only parties that could access them, and only for

the purpose of research. Names and any form of identity were not included in the questionnaires. **Right to freedom of choice:** The participants were informed of their right to withdraw from participation at any time during the study process through the information letter. They were also informed that they could access the research information collected from the Ministry of Health and Social Welfare of Lesotho.

Results

The results of this study are sectioned into the following sub-headings; knowledge of COVID-19; knowledge of COVID-19 vaccine; experience of COVID-19 vaccine and attitudes towards COVID-19 vaccine.

Knowledge about COVID-19

Figure 1 below shows that only 1% fully understood the intricacies of the disease. The bulk of the participants, representing 77% (21% "too much" and 56% "much"), indicated a considerable understanding, while 22% confessed limited understanding, with the majority in this category having a Matric qualification and working as porters.

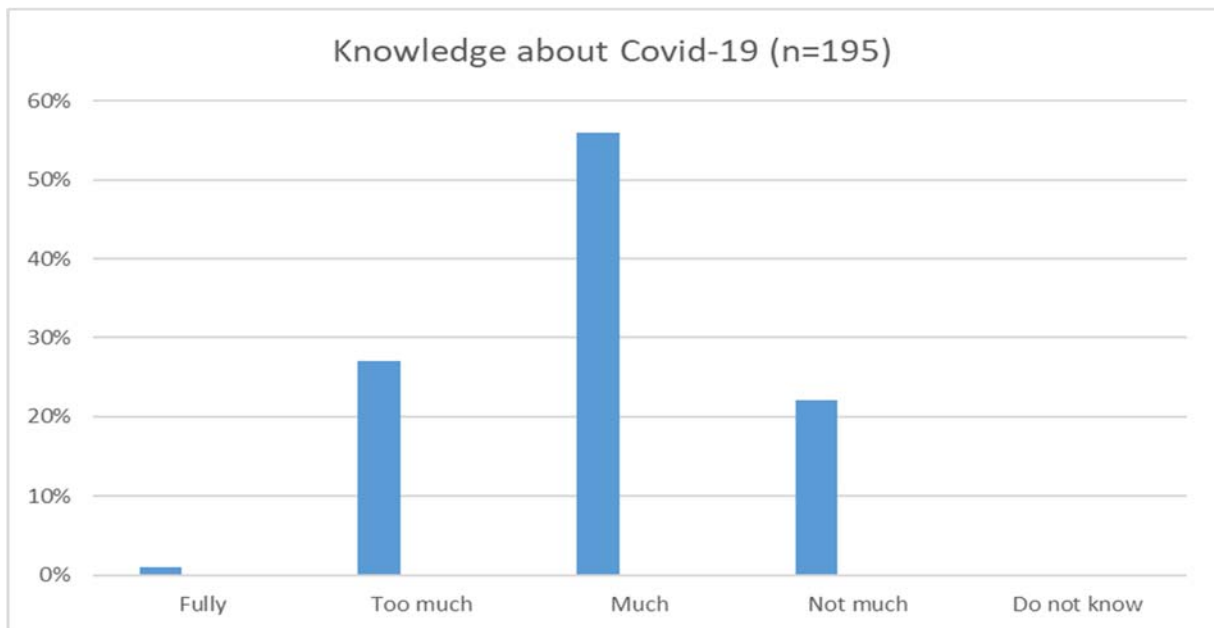


Figure 1: Knowledge about COVID-19

Knowledge about COVID-19 vaccine

Figure 2 below indicates a notable aspect of the data is that 36% of participants self-identified as being “very well informed” about the COVID-19 vaccine. Conversely, the predominant cohort (43%) situates themselves in the “fairly informed” category, their confidence level teetering between comprehensive understanding and rudimentary awareness. Alarming, the data exposes a critical 21% feeling “little informed” and an even starker 1% admitting complete unawareness. The ramifications are multifaceted. Limited knowledge, especially amongst health professionals, can inadvertently perpetuate myths, instigate hesitancy, and hinder vaccine advocacy.

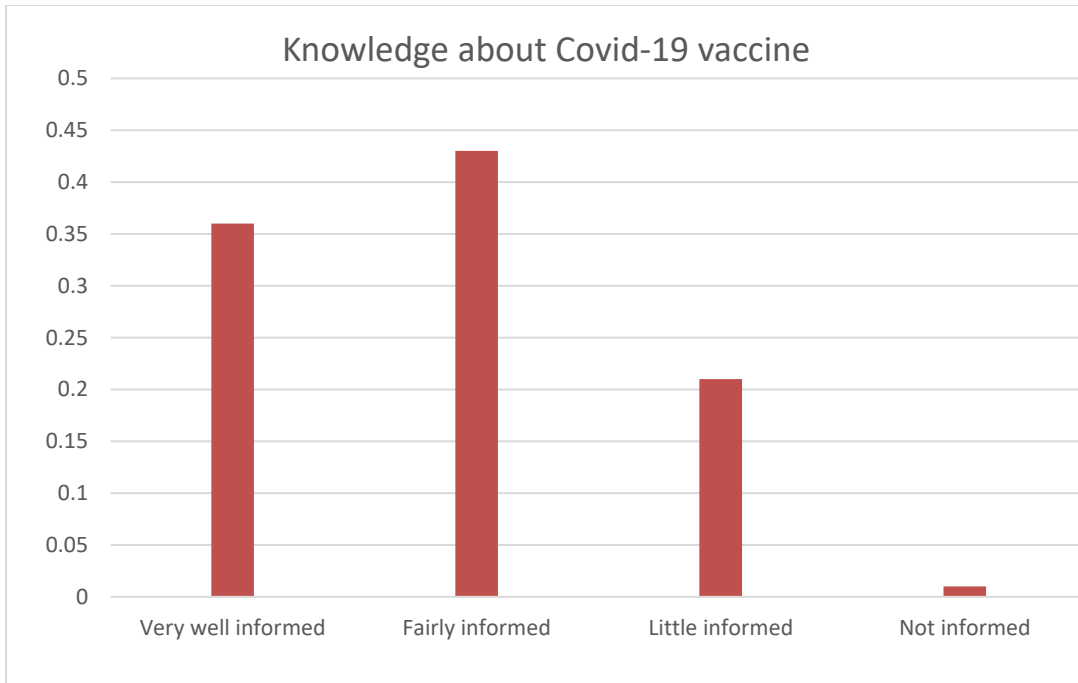


Figure 2: Knowledge of COVID-19 Vaccine

Experiences towards COVI-19 vaccine

As we descend into the intricacies of figure 3 below, we bear witness to the manifold experiences of healthcare workers in Lesotho, positioned at the frontline of the COVID-19 battle. An impressive 83% underwent testing, a potentially unavoidable encounter given their heightened exposure. Within this majority, a sizable fraction, 26.9%, contracted the virus. However, a commendable 92.2% displayed a commitment to the global vaccination drive. Intriguingly, 77.8% underwent vaccination before being exposed to the virus. While a substantial segment (36.4%) reported asymptomatic tendencies, nearly half encountered minor COVID-19 symptoms, and 13.9% experienced severe symptoms without hospitalisation. Post-vaccination anecdotes appear less grim, with half being devoid of side effects. Despite their first-hand experience with the virus and its vaccine, a mixed consensus emerges about the vaccine's efficacy and the general preventative measures against COVID-19.

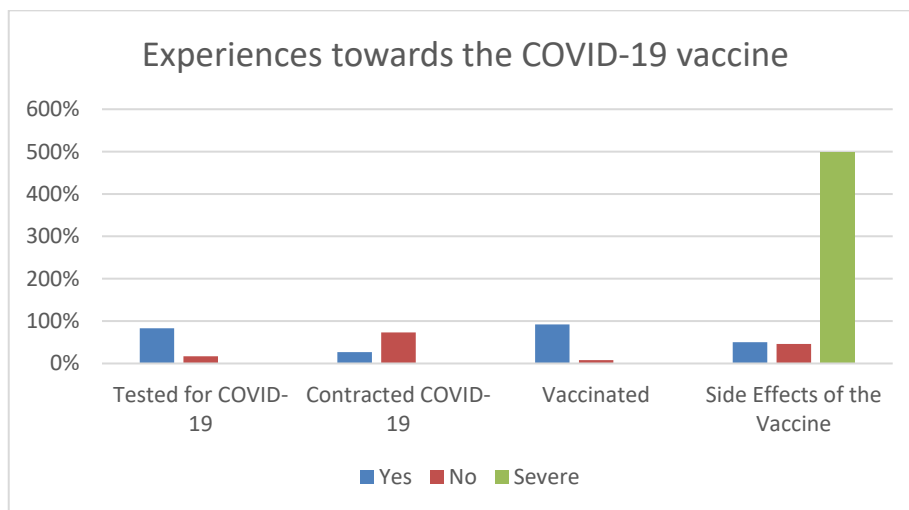


Figure 3: Experiences towards COVID-19 Vaccine

Attitudes Towards COVID-19 vaccine

The pulse of attitudes, especially in the realm of an epoch-defining pandemic, is indispensable for discerning the contour of public health responses. Table 4.12 offers a window into such attitudes amongst healthcare professionals in the Leribe district, Lesotho. An overwhelming majority of participants (95.4%) unequivocally acknowledge the existence of COVID-19, revealing a grounded awareness level. The validation of the vaccine as a preventative measure garners significant endorsement, with 83.6% affirming its role in mitigating the spread of the virus. However, when magnifying the lens on recommendations for vaccination to peers and kin, there emerges a more gradient spread: 50.8% would ardently champion it, 40.5% would tentatively endorse it, while sceptics constituted a minor 4.1%.

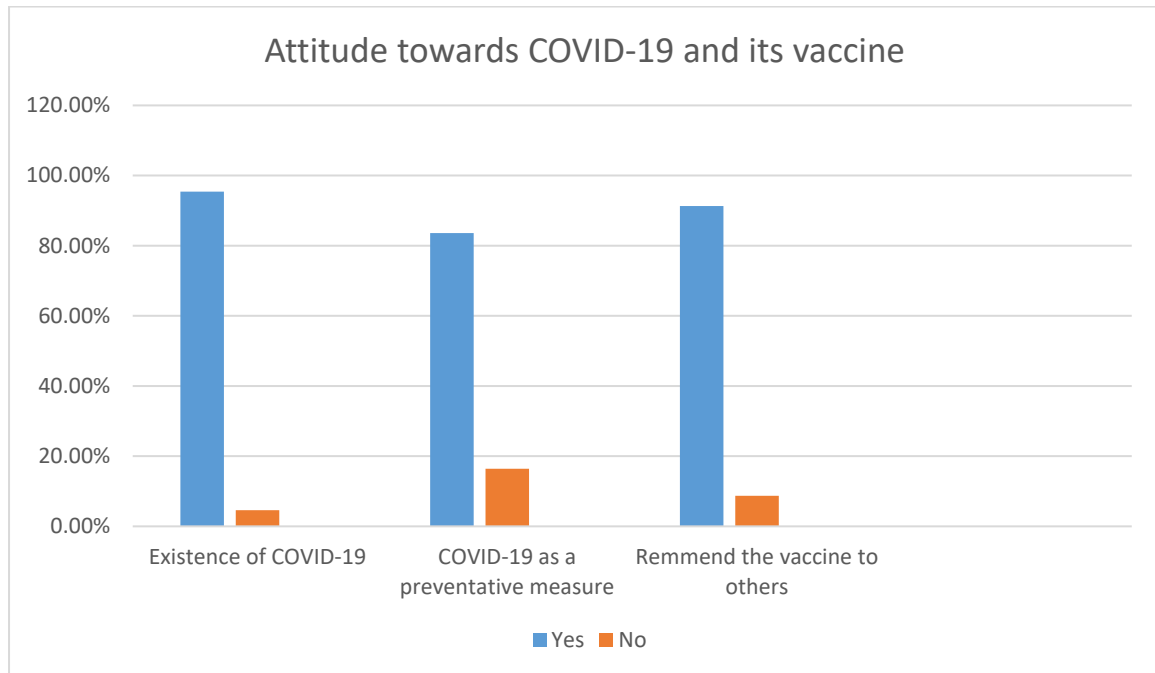


Figure 2: Attitudes towards COVID-19 and its vaccine

Possible Outcomes

This study is attempting to determine how the experiences, knowledge, and attitudes of the professionals in Lesotho towards Covid-19 infection and Covid-19 vaccine affect the spread of Covid-19 in Lesotho. The study sample involves the people who are professionals, who are working and are literate. These people observations will therefore be more likely reflect the true sense or the true nature of the outcomes. Since Covid-19 is a new viral infection, their attitudes will not be influenced by their previous experiences, therefore, they are trusted to give realistic views on the study topic. The likely outcome of the proposed study is to identify the association between the knowledge, experiences, and attitudes among health professionals in Lesotho towards Covid 19 vaccine and the rate of Covid-19 infections.

Conclusion

In summary, while knowledge, brand awareness, and perceived information adequacy are potent influencers of vaccine confidence, they should be coupled with authentic, transparent, and actionable insights to mould public opinion constructively. In Lesotho's professional milieu, the lesson remains clear: Equip individuals with the right information, and you empower them to make health decisions that benefit the collective. The research on knowledge, experiences, and attitudes towards the COVID-19 vaccine amongst professional workers in Lesotho has illuminated critical aspects of the vaccine's reception in a particular demographic. The study's conclusions are shaped by the data derived from these professionals, shedding light on the prevailing beliefs, knowledge gaps, and behavioural inclinations related to the vaccine. The following recommendations aim to bolster the public's knowledge, trust, and acceptance of the COVID-19 vaccine, especially amongst professional workers in Lesotho. Implementing these suggestions can lead to a more informed and proactive community, hastening the nation's journey towards herd immunity and a return to normalcy.

Author contribution

Project layout and supervision; M.F.S.; drafting of article, J.K., Editing, M.F.S; Drafting final manuscript, M.F.S and J.K. All authors have read and agreed to the published version of the manuscript.

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Institutional Review Board Statement

This study was conducted according to the guidelines and approval of the Higher degree committee and Research Ethics Committee of the University of Johannesburg, ethical clearance number: REC 2018-2023 and NHREC Registration: REC 241112-035

Informed Consent Statement

Informed consent was obtained from all participants involved in the study.

Conflict of interest

Authors declare no conflict of interest.

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