Research Article

Knowledge and Practices Regarding the Prevention Principles of COVID -19 Among Third Year Degree Nursing Students at a University Khomas Region, Namibia

Joseph Galukeni Kadhila[1*], Tulela Phophy[2]

[1]School of Nursing and Public Health, Faculty of Health Sciences and Veterinary Medicine, University of Namibia.

[2]Tuna-tate Nyanya University of Namibia.

*****Corresponding Author**
Joseph Galukeni Kadhila School of Nursing and Public Health, Faculty of Health Sciences and Veterinary Medicine, University of Namibia.

Abstract

Background: The rapid spread of SARS-CoV-2 is responsible for the global pandemic. Since the outbreak of COVID-12 began, necessary measurements and policies were provided to the public for prevention of the transmission of the disease. This measures and polies included: mandatory wearing of a mask in public, social distancing, regular hand sanitizing, and avoidance of overcrowded places etc. This study assessed the knowledge and practices regarding the prevention principles of covid-19 among third year degree nursing students at a University Khomas region, Namibia.

Methods: A quantitative study was conducted on 77 study population and participants who were chosen using simple random sampling. The data was collected with the use of questionnaires. A pilot study was done on 5 participants to assess reliability of the data collection tool/questionnaire, or if there would be any changes that have to be made in the questionnaires and to note down time spent on answering the questionnaires. Data was analyzed with Microsoft excel version and descriptive analysis. The findings are presented in pie charts, bar graph and tables.

Results: The findings showed that, most of the students 91% have good knowledge and practices regarding the prevention principles of OVID-19. Although the findings indicated overall good knowledge and good practices regarding applications of the preventive principles for COVID-19, the findings nevertheless indicated that 71% of the participants had average knowledge, 23,4% had poor knowledge while, 90% had average practices and 32% had poor practice regarding applications of the preventive principles for COVID-19. Out of the 77 participants, only 1% of the student know that COVI-19 is disease and the whole 99% don't know which, apart from that poor knowledge, 25 participants from the 77, think getting vaccinated will prevent getting infected by COVID-19, but it only reduces getting infected.

Conclusion: Some knowledge and practice gaps were identified about the students not having average or poor knowledge whether COVID-19 is a disease or virus and that getting vaccinated prevent one from getting infected or reduce the risk of getting infected. Apart from that, third year nursing degree students have good knowledge and practices on COVID-19 prevents

Introduction

Defined pandemic as a disease outbreak that has spread across multiple countries and usually impacts many people [14]. In addition to that, define COVID- 19 as infectious disease caused by new coronavirus type 2 severe acute respiratory syndrome (SARS-CoV-2), COVID-19 was identified for the first time in December 2019 within an atypical pneumonia outbreak in the city of Wuhan, China [16].

COVID-19 is a pandemic disease that affected many individuals, whereby its impact and its consequences are felt differently depending on the people's response to the infection and health status as individuals and as members of the society.

It is a common believe that the virus is spread between people who are in close contact with each other typically within a distance of 1 meter (short-range) and the virus is transmitted by

being in contact with infectious materials or with contaminated surfaces [19]. Current evidence also suggests that the virus can spread from an infected person's mouth or nose in small liquid particles when they cough, sneeze, speak, sing or breath [19]. In addition, the virus is characterized by symptoms of fever, cough, and tiredness, loss of taste or smell and shortness of breath. During this pandemic, permanent health workers and student nurses have always been the frontline and the first healthcare providers to interact with patient presenting with COVID-19 symptoms, which predisposes them to contracting the disease.

As reported by [13]. there are various ways one can protect themselves or prevent themselves from contracting the virus such as: covering of mouth and nose when coughing and sneezing; washing of hands frequently and carefully by using warm water and soap while rubbing hands under running water for at least 20 second; washing fresh groceries and self-quarantine if one is sick; avoidance of touching face or any part of head; stop-shaking hands and hugging people, practice physical (social) distancing seriously; not share personal items like phones, makeup, combs and eating utensils. Cleaning and disinfecting surfaces, avoidance of gathering in groups, avoidance of eating or drinking in public places, wearing of masks are also preventive measures for COVID-19.

The report of a study conducted by the [18], claims that COVID 19 can also be prevented through individuals choosing to be in an open, well ventilated spaces over closed ones, get vaccinated because the vaccine helps the body to produce antibodies against coronavirus. Antibodies equally help the immune system to fight the virus if happed to be exposed. The spread of COVID-19 is concernedly increasing which is why the researcher chose to do a study on knowledge and practices regarding the prevention principles of covid-19 among third year degree nursing students at a University Khomas region, Namibia.

Background of the Study
The outbreak of coronavirus disease 2019 which is caused by severe acute respiratory syndrome coronavirus (SARS-CoV-2), has posed a very huge challenge to the production, finance and health security of people around the world. By reason of rapidly spread of COVID-19, director general of WHO declared that the outbreak as a public health emergency of international concern on the 30th of January 2020 [18].

A study conducted by [9] stated that, the origin of SARS-CoV-2 is still a mystery even though it is established that it is a zoonotic virus. In December 2019, a 55 years old individual was the first case of COVID-19 that was detected in the Wuhan city of the Hubei province in the People's Republic of China [15].

The World Health Organization (WHO) gave the abbreviated name COVID-19 in the press released on the 11 February 2020 [19]. This pandemic has claimed many lives, [20]. SARS-CoV-2, the virus that causes COVID-19, has infected over 83 million people and caused over 1.8 million deaths worldwide as of 5 January 2021.In Africa, where the first case was reported in February 2020, there have been 2.8 million cases and over 68 000 deaths as of 6 January 2021 [8]. Stated that, Namibia recorded its first COVID-19 cases on 14 March 2020 [2]. As at January

2021, the Johns Hopkins Coronavirus Resource Centre cites a total of 32,425 COVID-19 cases in Namibia, and 319 deaths.

Due to highly infectious of COVID-19 [4]. reported that, there are various ways one can protect themselves or prevent themselves from contracting the virus such as: washing of hands frequently and carefully by using warm water and soap while rubbing hands under running water for at least 20 second; practicing physical (social) distancing seriously; washing fresh groceries before consumption; self-quarantine if one is sick; avoidance of touching face or any part of the face or head; covering of mouth and nose when coughing and sneezing; stop-shaking hands and hugging people; not share personal items like phones, make-up, combs, eating utensils; cleaning and disinfecting surfaces; avoidance of gathering in groups; avoidance of eating or drinking in public places and wearing of masks.

In addition to that, the study claim that, COVID 19 can also be prevented through individuals choosing to be in an open, well ventilated spaces over closed ones and get vaccinated [19].

The Minister of Health and Social Services, stated that even though there are preventions measures of COVID-19, the cases among health care workers in Namibia are still high [6]. A total of 1,350 Namibian healthcare workers have contracted the Coronavirus (COVID-19) while more than 6 of health care workers died in January 2021 due to the virus. This number of active cases among the healthcare worker in Namibia shows that the healthcare givers are not adhering to COVID-19 prevention principles [20].

It is for this reason that the researcher aims to study the knowledge and practices regarding the prevention principles of COVID-19 among third year degree nursing students at the University of Namibia, main Campus.

Aim of the Study
The aim of the study was to study the knowledge and practices regarding the prevention principles of COVID-19 among third year degree nursing students at a University Khomas region, Namibia.

Methods
A quantitative approach was suitable to use as it helped the researcher to focus on a specific issue that was to be studied in the study population, allowed to reach a high sample size, and allowed collecting information fast pace. This study used quantitative research approach of a descriptive design to collect the data on the knowledge and practices regarding the prevention principles of COVID-19 among the third-year degree-nursing students at the University of Namibia, Main Campus.

The population of this study included 100 third year nursing degree students at a University Khomas region, Namibia who are registered for the academic year 2022.

Survey
A questionnaire-based survey is also easy to conduct. The questionnaire consisted of series of close-ended questions developed in English. The knowledge and practices score were categorized

into four levels, namely: poor, average, good and excellent.

The questionnaire had three section, section A asked about Participant's demographic data e.g., gender, age, religion, level of education completed, marital status, whether they have nursed a COVID-19 patient and for how long. Section B was about the Knowledge about prevention measure for COVID-19, which included multiple choice response, where by the responded had to choose from A, B, C the letter they think represented the correct response. The last section, Section C was about the Practices of COVID-19 prevention principles with true/false and multiple choice from A, B, C and D.

Data Collection Procedure

The data collection started from 18 July 2022 when the participants were on practical's and ended on the 2 September 2022, when the participants were on theory session. The researcher handed out the self-administered questionnaires to prospect participants, towards the achievement of a sample of 77 participants. The respondents were asked to choose from the given alternatives and answered the questionnaires that moment and gave back the questionnaires together with consent to the researcher. The respondents were given approximately 30 minutes to answer the questionnaires.

Results and Findings
Participant's Demographic Data
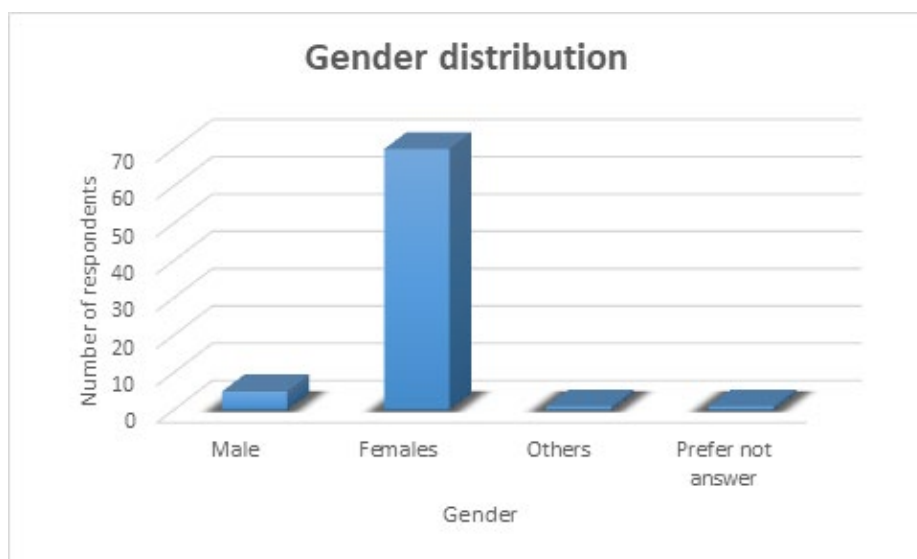
Figure 1: Gender of the participants

The figure 1 above shows the gender distribution of 77 participants of which 70 respondents were female, 5 respondents were male, 1 fall under others and 1 participant prefer not to answer. The figure shows that most of the participants were females and less were others and prefer not to answer.

Data Analysis

The analyses and interpretation of the data was completed with the assistance of Microsoft Excel software, and performed descriptive analysis statistic (frequencies, percentage). The findings were presented in pie charts, tables and bar graph to enhance the understanding of the findings.

Ethical Consideration

For this study, the researcher ensured that the permission to conduct the study is granted by relevant authority and the ethical principles of respect for a person, non-maleficence, beneficence and justice are adhered to as this ensure the legibility of this study.

The Ethical Committee of the School of Nursing at University of Namibia has ethically cleared this study proposal, before the data collection. The permission to conduct the study among 3rd year degree nursing students at the University of Namibia, Main Campus and obtain a list of the cohort was obtained from the Management of the School of Nursing and the lecturers of the cohort respectively.
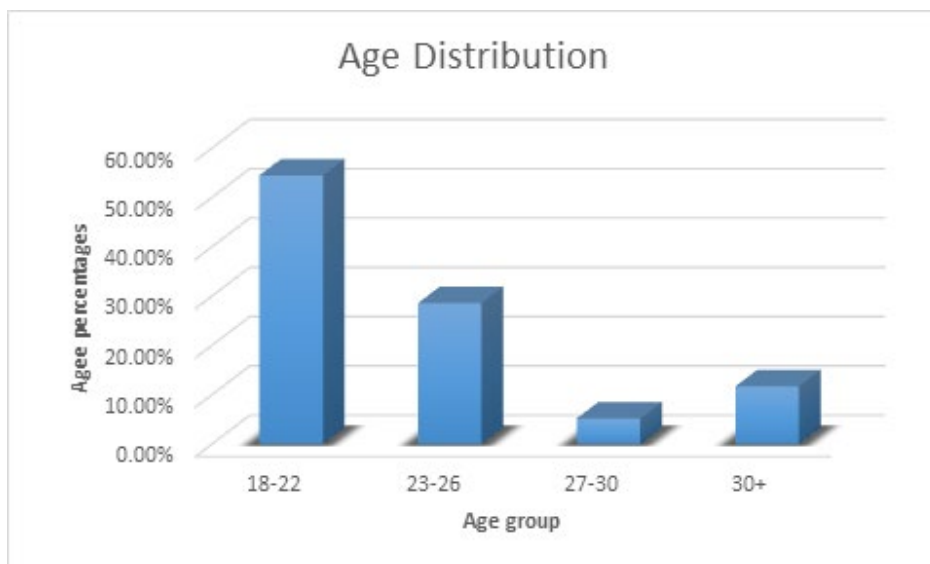
**Figure 2:** Age of participant

The figure 2 above shows the age percentages of 77 participants. The age groups were categorized as follow 18-22, 23-26, 27-30 and 30+. In the figure, it can be seen that high percentage of 54.5% of the respondents are in the age range of 18-22, followed by 28.6% in the age range of 23-26. This mean that most of the respondents are the younger people between the range of 18-2 years of old which made up the total of 83% of the respondents in the study. Low responses came from the age range of 30+ with the percentage of 11.7% followed by the age range of 27-30 with 5.2%.

Table 1: Religion of the participants

Religions	Frequency	Percentages
Christian	68	88.3%
Muslim	0	0%
Catholic	5	6.5%
Others	4	5.2%
Total	77	100%

Table 1 above shows different type of region of the respondents. Above it shows that most of the respondents in the study are Christians which makes up a total of 88.3% of the participants, followed by Catholic religion with 6.5%. Fewer participants belong to other religions that were not mentioned which makes up 5.2% of the respondents. None of the participants was of a Muslim religion, so it gave 0% of the respondents.
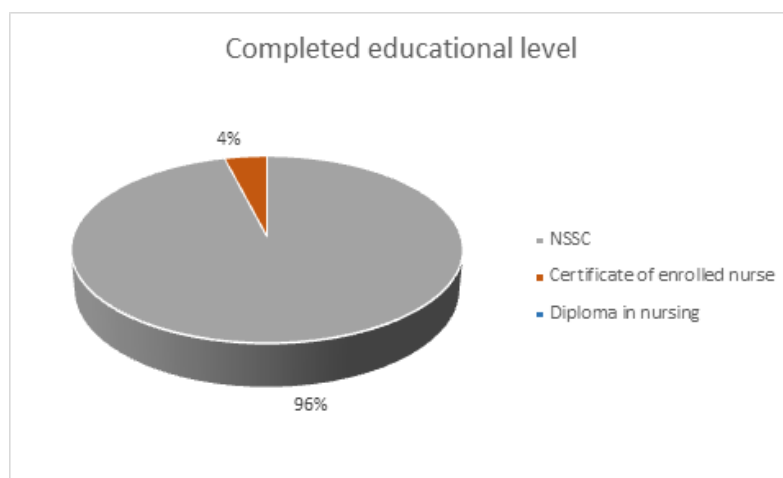
Figure 3: Level of education the participants completed

The Figure 3 in a pie chart above illustrates the level of education of the participants completed. From the chart above, majority completed secondary school, making up the highest percentage of 96% participants, followed by fewer respondents those with certificate in enrolled nurse that makes up 4% of the participants. None of the participants have the qualification of diploma in nursing and this makes up 0% of the respondents.
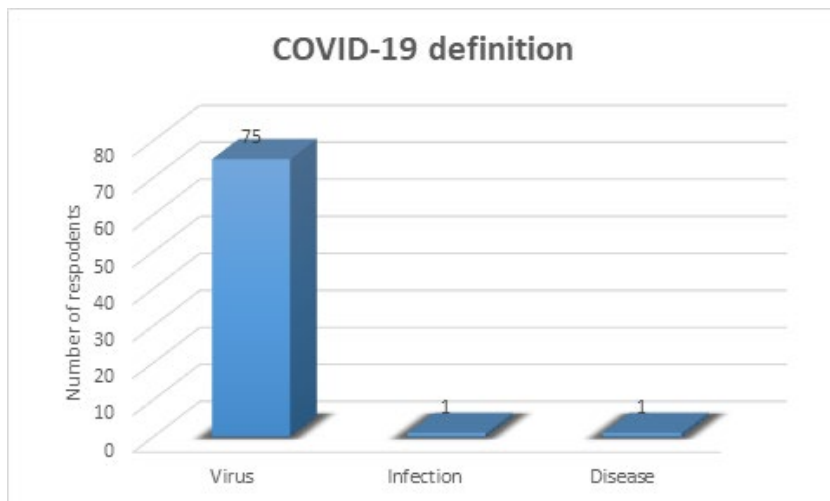
Figure 4: Coronavirus 2019 is a?

In figure 4 above shows that majority (97.4%) of the participants (75) out of 77 respondents believe that COVID-19 is virus which, followed by fewer respondents who believe COVID-19 is an infection and that COVID-19 is disease [1].
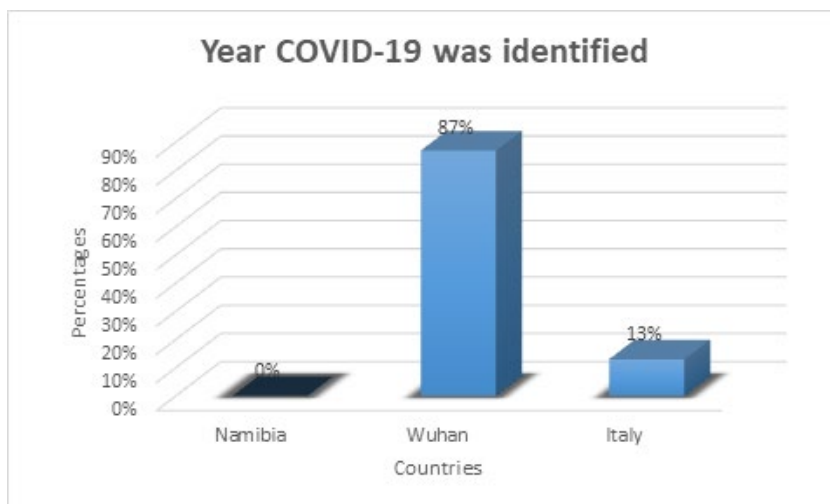

Figure 5: First COVID-19 case was identified in?

The above figure 5 shows that out of 77 respondents 67 (87%) of them think that the first case of COVID-19 was identified in Wuhan which is the answer that got most of the respondents, fewer participants of 10 (13%) think COVID-19 first case was identified in Italy. No participant thinks that firs case of COVID-19 was identified in Namibia (0%).

**Table 2: What year was COVID-19 detected in Namibia?**

Years	Frequency
2022	0
2019	26
2020	51
Total	77

The table 2 above indicates that majority 51 (66%) of the respondents indicated the correct year, 2020 for the first detection of COVID-19 and only fewer 26 (34%) of them indicated a wrong year 2019 as when COVID-19was first detected. None of the participants chose the year 2022.
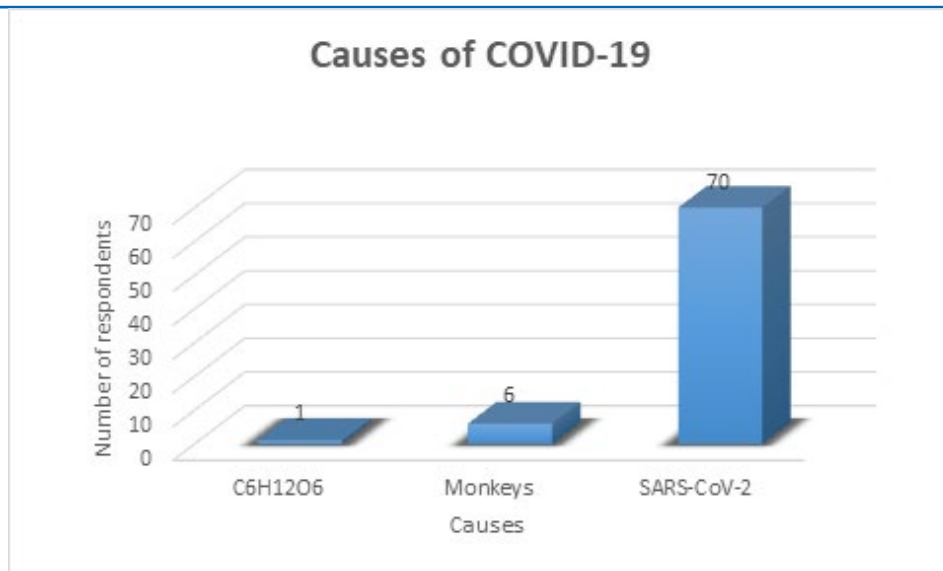
Figure 6: Is the cause of COVID-19?

The bar graph in figure 6 illustrate that more of the respondents with the total of 70 (91%) indicated the correct answers that COVID-19 is caused by SARS-CoV-2, and only fewer respondents with the total of 6 (9%) that took part indicated that COVID-19 is caused by monkeys while only 1 participants also believed that it is caused by C6H12O6.a
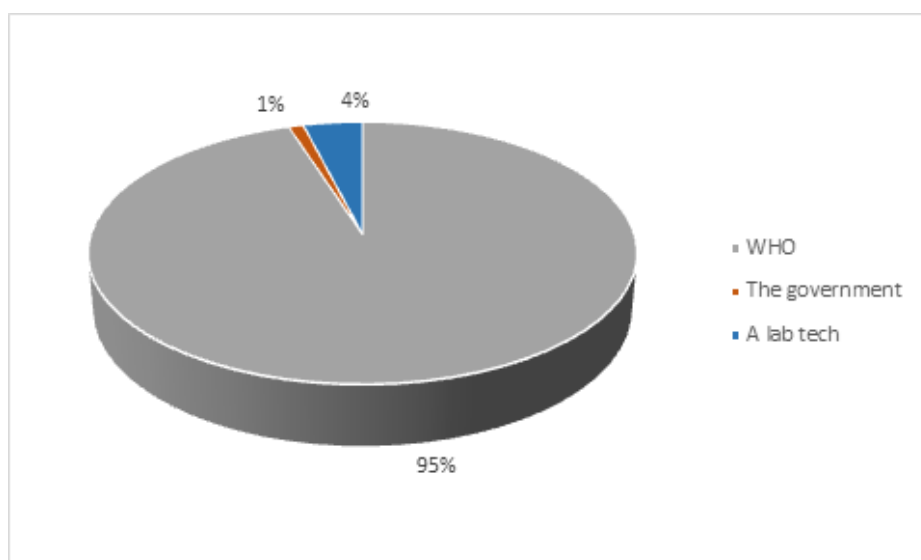

Figure 7: Issued the official name COVID-19?

The pie chart figure 7 above shows the organization issued the official name COVID-19. The highest percentage of the respondents correctly chose World health organization that makes it the total percentage of 95%; fewer respondents of 4% chose a lab tech as the answer followed by only 1% of the participants who chose the government.

Table 3: When was the name COVID-19 given?

Date/month/year	Frequency	Percentage
25 December 2019	52	67.5%
1 January 2022	0	0%
11 February 2020	25	32.5%
Total	77	100%

As it is shown in table 3 above most of the participants (67.5%) that took part in the study believe that the name COVID-19 was give on the 25 December 2019 which is the wrong answer, while fewer (32.5%) indicate the correct answer that the name was given on the 11 February 2020. None of the participants think 1 January 2022 is the right answer.
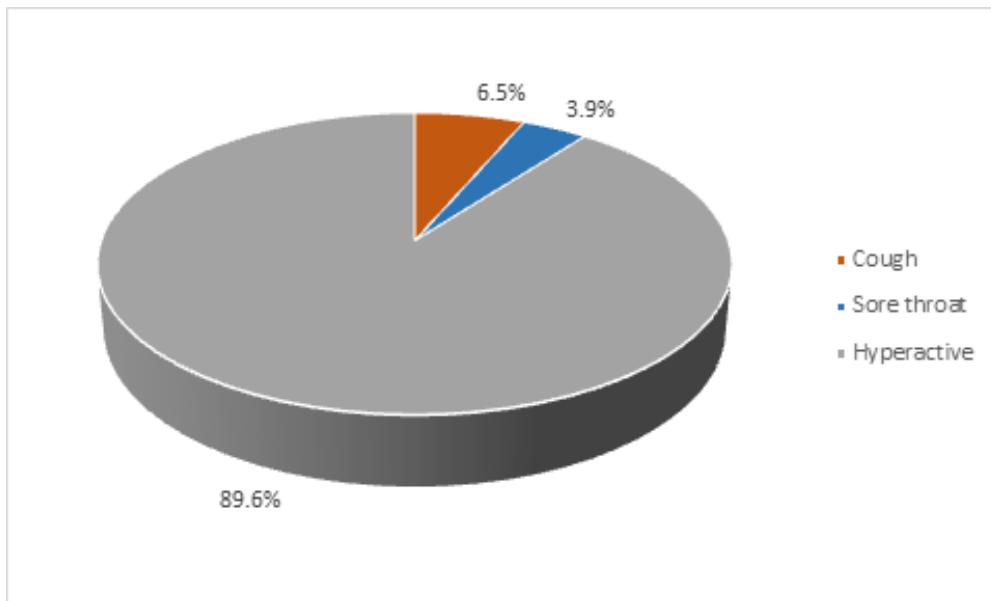
**Figure 8:** the following are symptoms of COVID-19 except?

Above it is indicated that, a percentage of 89.6% which is the highest respondents chose the correct answer hyperactive flowed by fewer 6.5% who chose cough the wrong answer. The least percentage of 3.9% chose sore throat the wrong answer as well figure 8.
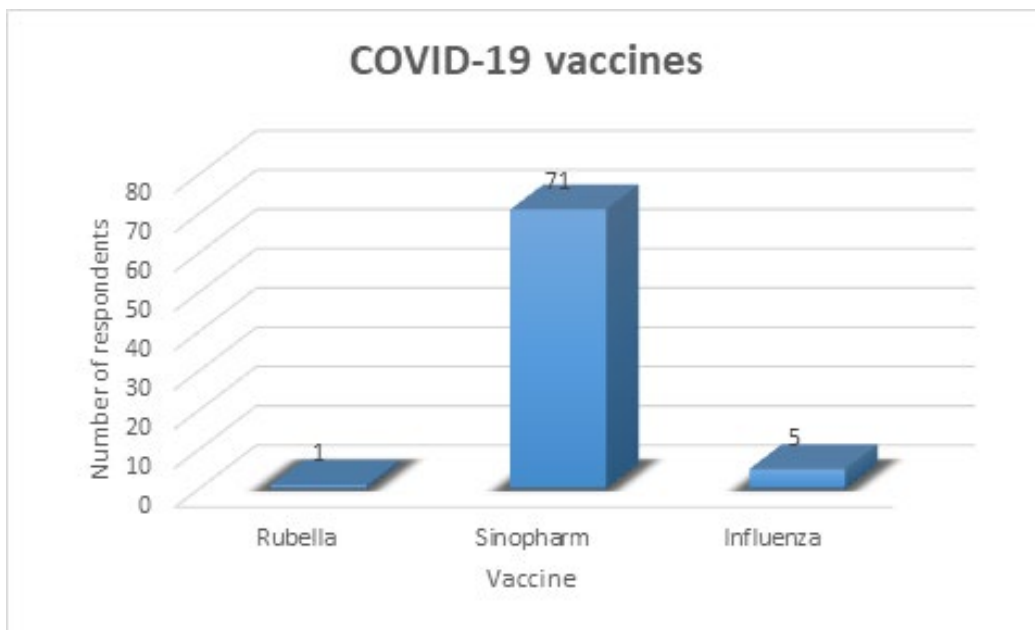
Figure 9: Which of the following is a type of COVID-19 vaccine?

Sinopharm vaccine was correctly chosen by most of the respondents with the total of 71 (92.2%), fewer participants chose influenza with total of 5 (6.9%) followed by Rubella vaccine which has the lowest respondents of only 1 (1.29%) figure 9.
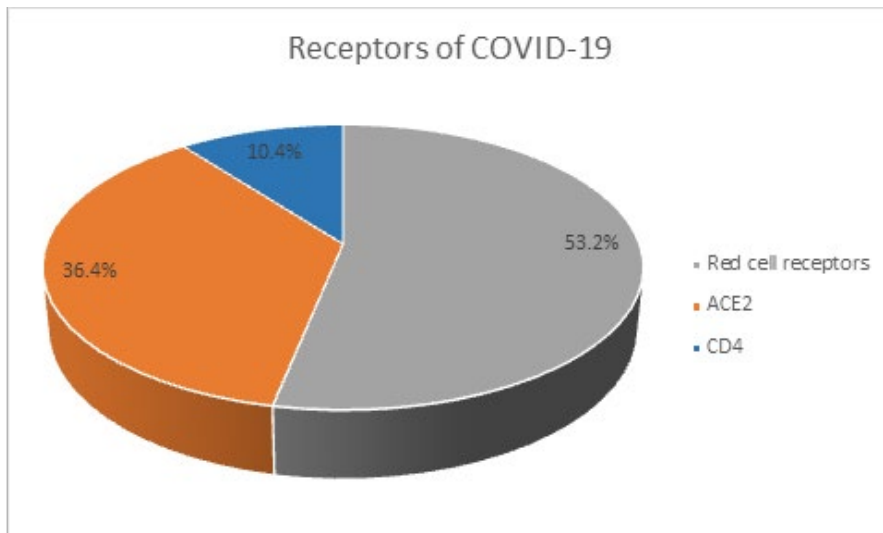
Figure 10: Which of the following is the receptors for COVID-19 in the human body?

53.2% of the respondents wrongly chose red cell raptors followed by 36.4% who correctly chose ACE2 and the answer with the lowest percentages of 10.4% wrongly chose CD4.

Table 4: Which one is not a lung complication for COVID-19?

Lung complication	Frequency
Pneumonia	5
Meningitis	71
Acute respiratory distress syndrome	1
Total	77

COVID-19 causes some lung complication, as classified in the table above. The participants had different views about the correct answers above; so, they chose as follow, 71 (92%) of the participants chose the correct answer meningitis which has the highest range of respondents.
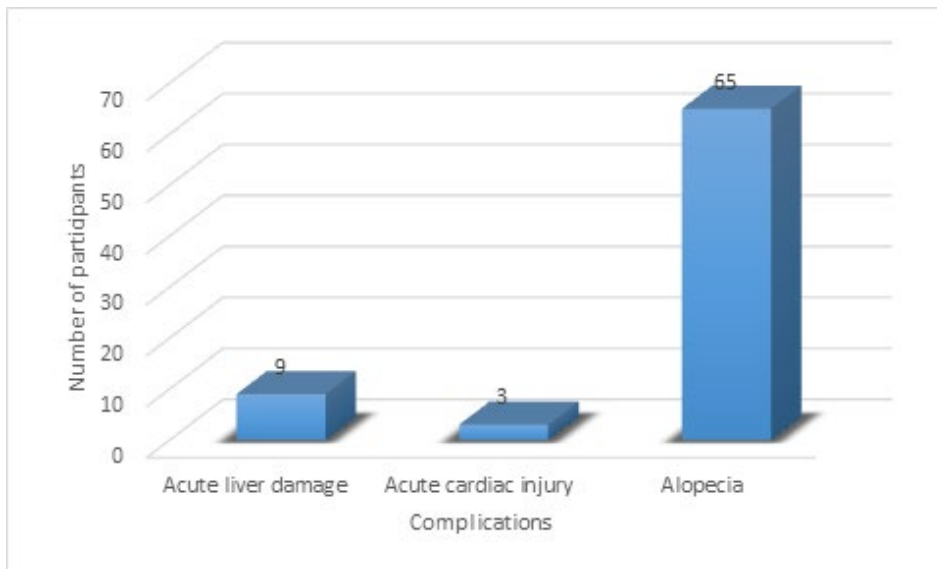
Followed by 5 (6.5%) of the participants who chose the wrong answer pneumonia and the lowest participants of 1 (1.3%) chose the wrong answer acute respiratory distress syndrome.
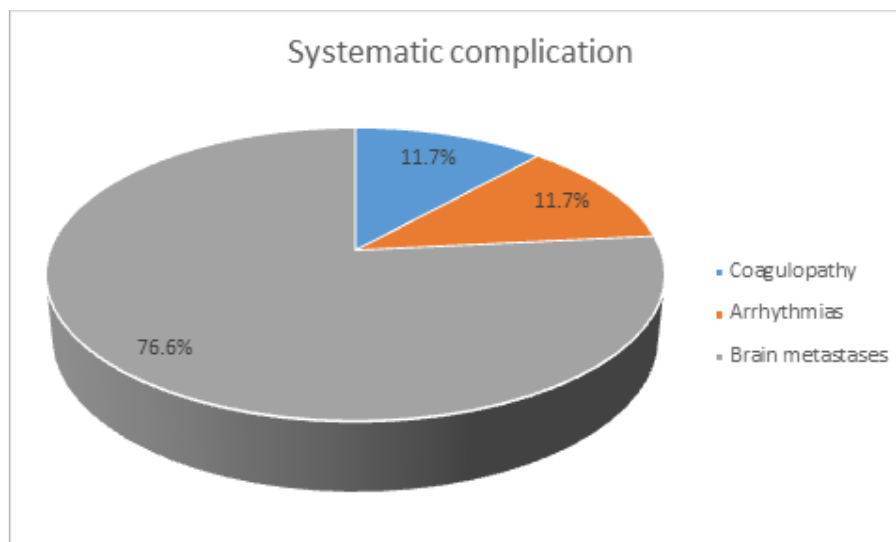
**Figure 11:** Which one is not a systemic complication of COVID-19 infection?

Due to COVID-19 the body can experience systematic complication. Figure 11 indicated the systematic complications from which the respondents chose the answer they believe is the correct answer. 76, 6% of the participants chose the correct answer Brain metastases and fewer (11.7%) chose Coagulopathy and Arrhythmias (11.7%) which have the same percentage of the respondents and wrong answers

Figure 12: Which one is also not a complication of COVID-19?

Figure 12 shows that majority 65 (84.4%) of the respondents chose the correct answer which is alopecia as the complication of COVID-19 followed by 9 (11.7%) of the participants who chose acute liver damage and fewer 3 (3.9%) chose acute cardiac injury and both of those answers are wrong.
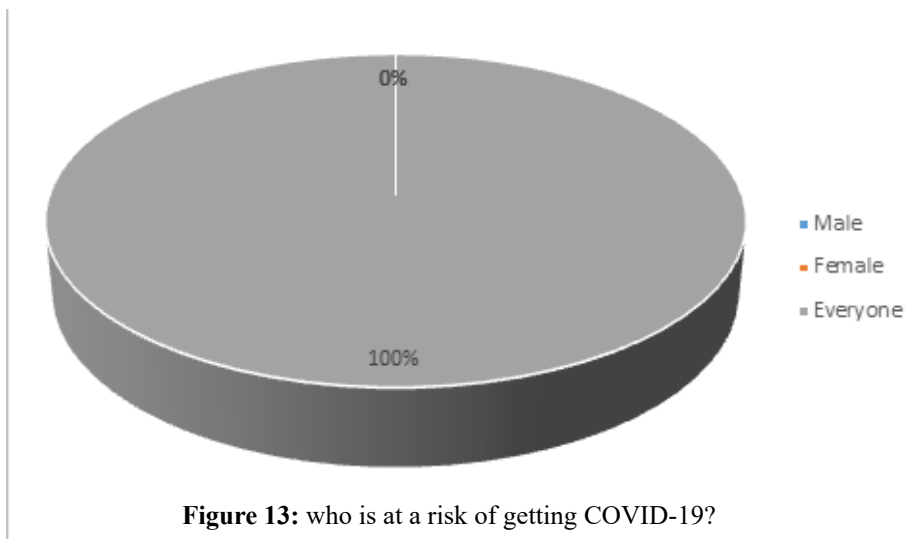
Figure 13: who is at a risk of getting COVID-19?

All the participants 100% (77) believe that everyone is at risk of getting COVID-19 which is correct, and 0% of the participants did not choose male nor female because they believe it is not the right answer figure 13.

PRACTICES REGARDING COVID-19 PREVENTION

Table 5: Question 1-4

Questions	True	False	Total
1. Washing of hands once a day is the best way to prevent COVID-19?	27 (35%)	50 (64.9%)	77 (100%)
2. After being vaccinated one cannot be infected with COVID-19?	2 (2.6%)	75 (97%)	77 (100%)
3. Wearing a well-fitting three-layer mask is one of a prevention practice?	74 (96%)	3 (3.9%)	77 (100%)
4. Steaming with hot water and drinking warm water before going to sleep and in the morning after waking up, eating lemons, onions and ginger can help with treating COVID-19?	76 (98.7%)	1 (1.3%)	77 (100%)

Table. 5 above is presenting question 1 to question 4 in section C. This question was about the practice regarding COVID-19 prevention among third year nursing degree students at University of Namibia, Main Campus. All the 77 (100%) students answered this question by choosing the true/false which they believed is the right answer.

For question 1, 64.9% of the participants chose true the correct answer, 35% took False which is wrong. Question 2, the highest

respondents (97%) who chose the correct answer which is False and the lowest responses came from 2.6% the wrong answer. 96% chose True the correct one and 3.9% chose False the answer which is wrong. Majority of 98.7% correctly answered True and 1.3% wrongly answer False.
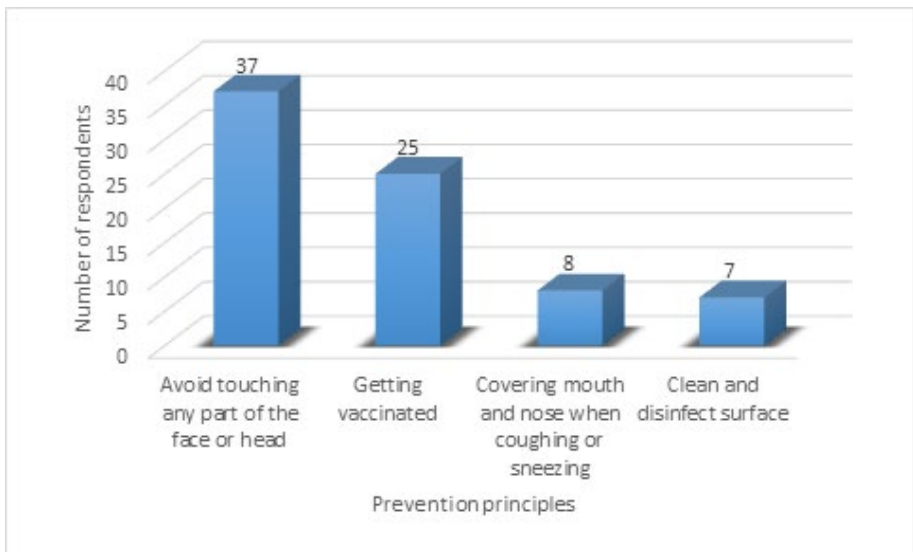

Figure 14: the following are all principles for prevention of COVID-19 infection, except:

The figure 14 indicates that most of the respondents 37 (48%) believe that avoid touching any part of the face or head is the right answer as shown above that 37 participants chose that answer, followed by getting vaccinated with 25 (32.5%) of the respondents and fewer participants of 8 (10.4%) chose covering mouth and nose when coughing or sneezing. The lease answered chose is clean and disinfect surfaces by only 7 (9%) of the respondents.
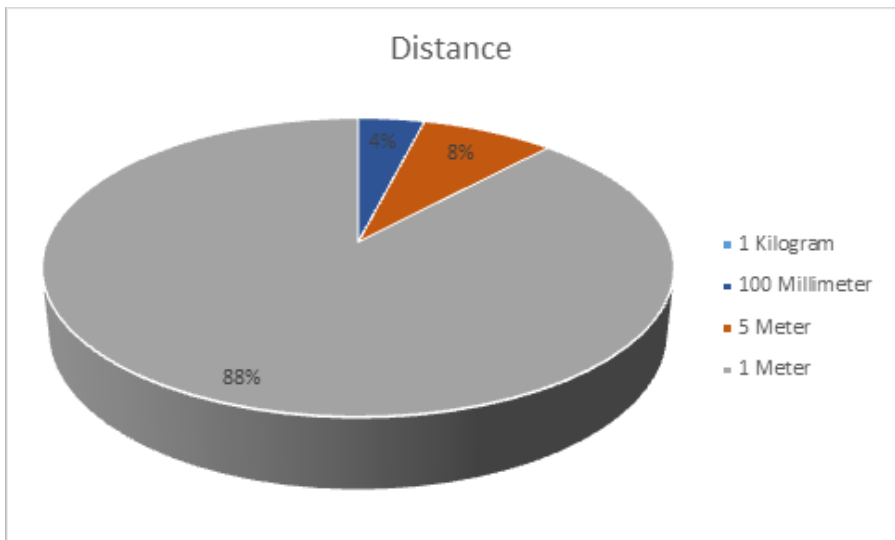

Figure 15: What is the minimum distance to be kept from each other to avoid COVID-19?

The findings in figure 15 indicate that 1 meter was the answered chosen by the majority (88%) of the respondents and correct, followed by 100 millimeters with 8% then 5 meters of 4% by the least of the respondents which are all wrong.
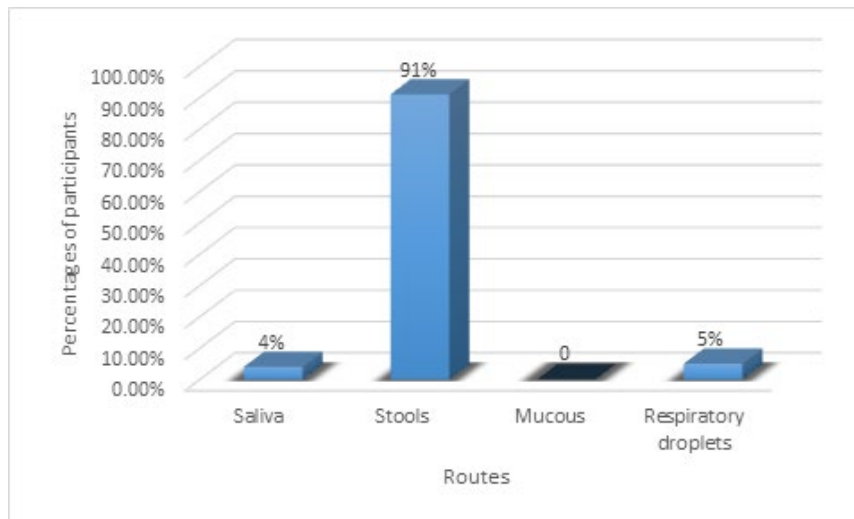
Figure 16: which of the following route has low chances of transmitting SARS-CoV-2?

Majority 70 (90.9%) of the respondents indicated the correct answer that stools has low chances of transmitting COVID-19 followed by 5% who chose respiratory droplets and 4% who chose saliva, the lowest respondents of participant chose mucous all the wrong options figure 16.
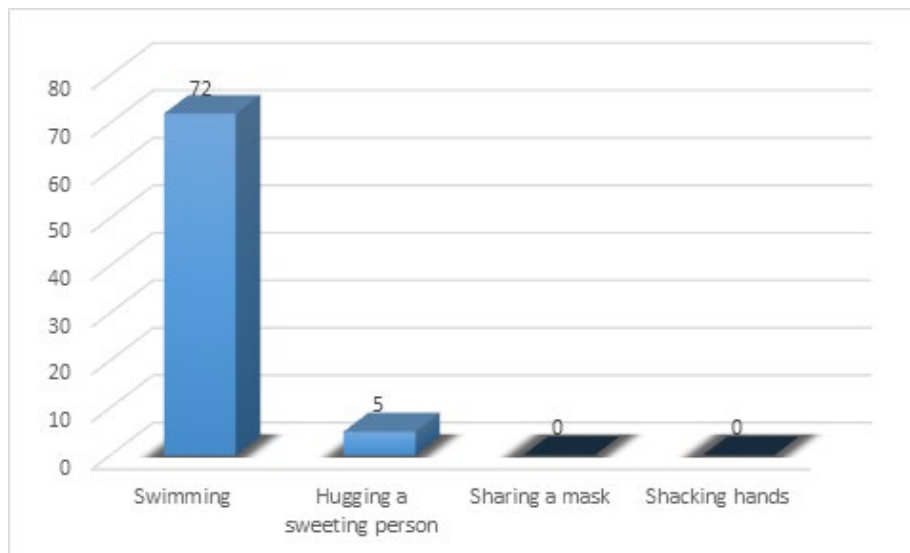
Figure 17: Which activity does not spread COVID-19?

COVID-19 can be spread in many ways, above are some ways on how COVID-19 does not spread. The findings in figure 17 indicate that the majority 72 (93.5%) of the participants were knowledgeable that swimming does not cause spread of COVID-19 and only 5 (6.5%) did not know that hugging a sweeting person causes spread of COVID-19. None of the participants chose sharing a mask nor shaking hands.

Discussion of the Results
This study was conducted on third year nursing degree students at a University Khomas region, Namibia. to test their knowledge and practices regarding the prevention of COVID-19.

Objective of the Study Were
To determine the knowledge regarding the prevention principles of COVID-19 among third year degree nursing students at a University Khomas region, Namibia.

To assess the practices regarding the prevention principles of

COVID-19 among third year degree nursing students at a University Khomas region, Namibia.

The discussions are presented according to the findings about the demographic information, knowledge and practice of the respondents regarding the prevention principles of COVID-19 among third year degree nursing students at a University Khomas region, Namibia.

Participant Demographic Data
A total number of 77 3rd year degree students at a University Khomas region, Namibia. participants participated in this study and all answered the demographic section of the questionnaire. The section includes demographic characteristic of the participants namely: gender, age, religion, level of education completed and marital status.

Gender
In the gender category 6.5% are male, 91% (70) are female, and

1.3% belong to other gender and 1.3% prefer not answer. Majority of the participant are females [1, 5]. The finding shows that most of the nursing students in the nursing department are females. Similarly, a previous study conducted by on factors affecting preventive health behaviors against COVID-19 in nursing students in Korea out of 218 nursing students, only 31 of the participants were male and 187 were female [12]. These revelations support a claim by, who states that nursing is a female dominated profession [10]. As a result, females are more among the participants of this/the current study.

Age
The high percentage of 54.5% (42) of the respondents are in the age range of 18-22. This means that most of the third-year nursing degree students at a University Khomas region, Namibia. belong to the age range of 18-22, the young people range. Majority of the respondents are between the age group of 18-22 because they are school leavers, neophytes in nursing, still learning nursing practices and may lack the knowledge and practice, regarding risk to COVID-infection. The fact that most of the participants belongs to the younger generation, this is beneficial because most of them know how to read and they will be able to read more information on the prevention of COVID-19 and put it to practice.

Level of Completed Education
The findings indicated that most 96% (74) of the participants were grade 12 holders and only 8% of the participants have the certificate in enrolled nursing as their highest qualification. This highest percentage of NSSC qualification is corresponding with the highest percentage of the 18-22 age group which indicate that majority of the third-year nursing students were from secondary school and had no experiences of nursing practices. The absent of experience of nursing practice have a negative effect on school leavers/ future nurses because they do not have the knowledge on diagnosing a COVID-19 patient nor have knowledge on prevention. They won't know what health education to give to the community member, and not giving health education will increase the spread of the disease. Finally, they won't have any practical skill on how to treat a COVID-19 patient because they have less experiences in rendering nursing care to patients with COVID-19.

Knowledge Regarding Covid-19 Prevention
In this section, the researcher tested the knowledge of third year degree nursing students at a University Khomas region, Namibia, regarding the prevention principles of COVID-19. The researcher included some wrong answers from where the respondents had to choose deliberately just to see to what degree the students have the knowledge regarding prevention of COVID-19 infection. The discussion about the knowledge regarding COVID-19 covers the findings on the variables of: definitions of COVID-19, the year COVID-19 was identified, named and the organization that named covid-19; cause and Receptors of COVID-19 in human body; symptoms for COVID-19; Vaccines for COVID-19; Complications of COVID-19 and people who are at risk/vulnerable to COVID -19.

According to this study, 87% of the third year degree nursing students had very good knowledge towards the COVID-19 preventions which is line with a study conducted by [11]. on students in Gondar town, Northwest Ethiopia regarding the knowledge, attitude, practice toward COVID-19 in which 88.3% of the participants were knowledgeable toward COVID-19 prevention. This level of good knowledge is encouraging since correct and adequate knowledge is the leading factor to keep oneself and others safe from transmission or getting infected from COVID-19.

However, the result of this study about students' knowledge regarding COVID-19 is lower as compared to at the study done in North India by [6]. among school students in which 92% of the participants were knowledgeable toward COVID-19 preventions. This may be due to difference in sample size as such factor may influence the findings of the study, late identification of COVID-19 cases as this delay establishments of information and sources on the disease to get in the country from the beginning of the first outbreak, difference in time at which the studies were conducted.

The researcher as well got a gap off poor knowledge where by only 23.4% of the participants among the third-year nursing degree students have knowledge on the definition of COVID-19, when the name COVID-19 was given and COVID-19 receptor in the human body. This gap might be due to lack of articles or research conducted, ignorance of reading new information on COVID-19. This low knowledge percentage is worrisome because the lack of knowledge lead to increased COVID-19 transmission.

Practices Regarding COVID-19 Prevention
The discussion about the participants' practice regarding COVID-19 covers the findings on the variables: minimum distance for prevention of spread of COVID-19; routes with low chance of transmitting COVID-19 and activities which spread/ do not spread COVID- 19. The findings are discussed in the next sessions.

Minimum Distance for Prevention of Spread of COVID-19
Generally, this study shows a good base of practices regarding the COVID-19 prevention which was presented by 88% of study participants/respondents. Nevertheless, the findings still raise concern and are worrisome due to the fact that 3 (3.9%) believed that the minimum distance to be kept in between to limit the spread of COVID-19 was 100 millimeters followed by 6 (7.8%) who believed in 5 meters. Nevertheless, the majority of the respondents impressed the researcher by choosing the right answer with 88% (68) which is 1 meter. This shows good practical prevention among the third-year nursing students.

Routes with Low Chance of Transmitting COVID-19
The findings indicated by proven that COVID-19 can be transmitted through mucous, saliva, stools, and respiratory droplets, but low chances of transmission are via stools [1]. The participants for the current study have proven excellent knowledge regarding prevention practices as majority 70 (90.9%) chose the correct answer stool and fewer of 4 (5.2%) took respiratory droplets, least 3 (3.9%) took saliva. This high percentage of participants with the correct practice have a significant advan-

tage on limiting the spread of COID-19 because majority of the students know the rout COVID-19 mostly transmitted through.

The study also found that 72 (93.5%) of the study participants know activities that do not spread COVID-19 because they chose swimming and fewer 5 (6.5%) chose hugging a sweeting person, but close contact such as hugging can spread COVID-19.

Activities Which Spread/do not Spread COVID- 19
According to this study, 89% of the respondents demonstrated correct practices toward the activities which spread and which do not spread COVID-19.

The level of COVID-19 prevention practice by this study is very high than the study conducted among Southwest Ethiopia students in 2022 by in which only 47% of the respondents had good practice of COVID-19 prevention [17]. This may be due to the fact that Namibia notified COVID-19 cases than Southwest Ethiopia, and several interventions and strategies by the government of Namibia may influence the COVID-19 prevention practice.

The students were asked to choose the option which COVID provide or confers complete immunity against COVID-19 (after being vaccinated one cannot be infected with COVID-19). As a result, 37 (48%) chose avoid touching any part of the face or head, 25 (32.5%) chose getting vaccinated, 8 (10.4%) chose covering mouth and nose when coughing or sneezing and 7 (9.1%) chose clean and disinfect surface. A significant of 32.5% indicate poor prevention practices percentage. Getting vaccinated doesn't prevent, but it only reduces the risk of getting infected by COVID-19 and if infected, it reduced virulence of the diseases. This finding is in centrally to those of the study by, of which the participants correctly mentioned all the prevention practices but not getting vaccinated [3].

Conclusion
To determine the knowledge regarding the principles for prevention of covid-19 among third year degree nursing students at the university of Namibia at Main Campus.
The findings concluded that third year degree nursing students of a University Khomas region, Namibia, have good knowledge about COVID-19, the official name for COVID-19; the year COVID-19 was detected in Namibia; causes and the symptoms for COVID-19; type of COVID-19 vaccine; lung and systematic complication of COVID-19 C as well as of the population at risk of getting COVID-19.

However, a significant (97%) of the participants demonstrated poor knowledge of Coronavirus 2019 because they believed that COVID-19 is a virus instead of choosing a disease. Similarly, the majority 53.2% of the Participants demonstrated poor knowledge on the receptors for COVID-19 in the human body and could not indicated ACE2 as receptors for COVID-19 in a human body.

To Assess the Practices Regarding the Prevention Principles of COVID-19 Among Third Year Degree Nursing Students at the University of Namibia at Main Campus.
In this objective, the participants display good skills regarding the prevention principles. Nevertheless, a worrisome 25 (32.5%) of the participants demonstrated poor practices for prevention, evidenced by a poor perception that vaccination can prevent one from getting infected, instead of that vaccination reduces the risk of getting infected with COVID-19.

Limitations
There are some limitations which were encountered during the study such as, the population chosen to collect the data were only third year degree nursing students from the at a University Khomas region, Namibia. Leaving out other third year nursing of other nursing programs at a University Khomas region, Namibia. and other third year degree nursing students at other campuses of UNAM. Therefore, the findings are not representatives of all nursing students at a University Khomas region, Namibia. neither of nursing students at other campuses of UNAM in other regions. Due to the use of close ended questions in the questionnaires this made the participants answers limited; they could not express more of their knowledge and practices on the prevention principles of COVID-19. Apart from that, the questionnaire was formulated in English, even though most of the participants are straight from school (grade 12) not all the participants understood the questions and this limited the researcher because the research ended up to read and explaining the questions in their primary language.

Declarations
Ethics Approval and Consent to Participate
Written informed consent was obtained from all the participants prior to data collection to partake in this study. Ethical clearance was obtained from the School of Nursing and Public Health at the University of Namibia Health Research Ethics Committee to conduct the study. The following ethical principles, respect for a person, justice, maleficence and beneficence where adhered and respected throughout the study according to guidelines.

Consent to Publish
Not applicable

Availability of Data Materials
The data base is available on a reasonable request from the corresponding author Joseph Galukeni Kadhila.

Competing interest
The authors declared no conflict of interest.

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