



# Knowledge and Practice among University Nursing Students Regarding Covid-19 in Clinical Placements at Public Training Hospitals, Khomas Region Namibia

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## Research Article

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## Abstract

Corona virus disease (COVID-19) is referred to as a highly infectious disease with a 14 days incubation period which is caused by Severe Acute Respiratory Syndrome Coronavirus, with its major clinical symptoms being fever, dry cough, fatigue, myalgia and dyspnoea. The objectives of this study were to assess the knowledge and practice regarding corona virus in clinical placement among second year University nursing degree students in the public training hospitals, Khomas region. The researcher implemented a quantitative non-experimental descriptive design and simple random sampling method for this study on a population of 98 participants using the Solvins formular. An online structured questionnaire in English language via google forms was utilized to collect data. The researcher formulated the online questionnaire. Data was analysed by google form using google spreadsheet. Data obtained from participants was presented in, tables, pie charts and graphs. The results from the study revealed that the participants have good knowledge regarding COVID-19 and they practice safe practices regarding COVID-19 averagely.

**Keyword:** Knowledge Practice; Corona Virus; Clinical

**Abbreviations:** SARS: Severe Acute Respiratory Syndrome; MERS: Middle East Respiratory Syndrome; WHO: World Health Organization.

## Introduction

Corona virus disease (COVID-19) referred to as a highly infectious disease with a long incubation period of 14 days, which is caused by Severe Acute Respiratory Syndrome Coronavirus [1]. Coronaviruses belong to a large family of respiratory viruses that can cause diseases including the Middle East Respiratory Syndrome (MERS) and Severe

Acute Respiratory Syndrome (SARS). Furthermore, with the current outbreak the causative agent was identified as a novel coronavirus and the disease has been named COVID-19.

Coronavirus (COVID -19) has two unique characteristics namely low pathogenicity and high transmissibility that differentiate it from other members of the coronavirus family such as SARS-CoV and MERS-CoV; this makes it difficult to control the spread of the virus. COVID-19 has become a major public health concern in the world and there are no antiviral medications been recommended so far and prevention is the best way to limit the infection from spreading [2].

World Health Organization, (WHO) (2020), declared the COVID-19 outbreak as pandemic and as a serious concern for public and occupational health. Furthermore, social mobilization is reported to play a major role in the spread of coronavirus. In order to reduce the rapid spread of COVID-19 through international contact and outbreak at local community, jurisdictions have executed policy interventions and public health measures to minimize the spread of COVID-19. The objectives of this study were to assess the knowledge and practice regarding corona virus in clinical placement among second year University degree nursing students in the public training hospitals, Khomas region.

## Methods

The researcher implemented a quantitative non-experimental descriptive design for this study as the researcher aims to assess knowledge and practice regarding corona virus in clinical placement among second year University degree nursing students in the public training hospitals, Khomas region. The population of this study consisted of all the second-year nursing degree students at

University degree nursing students in the public training hospitals, Khomas region.

## Data Collection

An online structured questionnaire in English language via google forms was utilized to collect data. The researcher formulated the online questionnaire. The questionnaire consisted of demographic, knowledge and practice based closed-ended questions and three sections. Data collection commenced as soon as permission was received from the School of Nursing and Public Health and written informed consent from the participants. Data was analysed using SPSS version 26 and presented in Table 1.

## Ethics

Permission to conduct the study was received from the School of Nursing and Public Health and an informed written consent from the participants. The following principles were adhered to during the study, respect for a person, justice, non-maleficence and beneficence.

## Results and Discussion

| Variables                         | Responses            | Frequency (40) | Percentage |
|-----------------------------------|----------------------|----------------|------------|
| 1.Age of the participants         | Less than 20 years   | 14             | 35.5       |
| 2. Gender of participants         | Male                 | 5              | 12.9       |
|                                   | Female               | 35             | 87.1       |
| 3. Highest qualification obtained | Grade 12 certificate | 37             | 93.5       |
|                                   | National diploma     | 3              | 6.5        |
|                                   | Bachelor's degree    | 0              | 0          |
| 4. previous nursing experience    | Less than 2 years    | 37             | 93.5       |
|                                   | More than 2 years    | 3              | 6.5        |

**Table 1:** Demographic Characteristics of Respondents.

The results in table 1 indicated that (35.5%) of the participants were less than 20 years of age, (61.3%) were 20-29 of age, and (3.2%) were above 40 years. (87.1%) were females while (12.9%) were males. Regarding the education level all participant are educated with (93.5%) having acquired their grade 12 certificate, (6.5%) have obtained their national diploma and none of the participants have acquired their bachelor's degree nor a master. (93.5%) show that majority of the participants have less than 2 years of nursing

experience while the remaining (6.5%) of the participants have more than 2 years of nursing experience. This simple shows that majority of the participants were young with fresh minds from high school, they are all educated and they can easily be taught, adapt and adhere the practices that prevents the spread and contacting corona virus. Some participants have previous experience in the nursing field making them to have knowledge regarding nursing practices.

### Knowledge regarding COVID-19 in Clinical Placement

| Questions   | Responses | Frequency (40) | Percentage |
|---|-----------|----------------|------------|
| 1. The main clinical symptoms of COVID-19 fever, fatigue, dry cough and myalgia?  | Yes       | 31             | 76.7       |
| 2. COVID-19 is caused by a COVID virus?   | Yes       | 27             | 67.7       |
|   | No        | 8              | 19.4       |
| 3. COVID-19 is highly infectious?   | Yes       | 32             | 80.6       |
|   | No        | 4              | 9.7        |
| 4. To prevent the infection by COVID-19, individuals should avoid going to crowded places such as train stations and avoid taking public transportations. | Yes       | 32             | 80.6       |
| 5. Mask and hand-gloves are fruitful to prevent the infection?  | Yes       | 26             | 64.5       |
|   | No        | 4              | 9.7        |
| 6. Does COVID-19 make the condition worse among those that are elderly or suffering from chronic illness like heart diseases, lung or kidney diseases?    | Yes       | 35             | 87.1       |
|   | No        | 0              | 0          |
|   | Not sure  | 5              | 12.9       |
| 7. Is it essential that people who are exposed to an infected person should be quarantined for the minimum period of 14 days?                             | Yes       | 30             | 74.2       |
|   | No        | 4              | 9.7        |
|   | Not sure  | 6              | 16.1       |
| 8. Eating non-veg food or contacting with pets may cause COVID-19.  | Yes       | 4              | 9.7        |
|   | No        | 33             | 83.9       |
|   | Not sure  | 3              | 6.5        |
| 9. Do you think isolation and supportive treatment of the infected are the effective measures to control the spread of infection?                         | Yes       | 24             | 61.3       |
|   | No        | 3              | 7.4        |
|   | Not sure  | 13             | 32.3       |
| 10. Persons with COVID-19 cannot infect others when the fever is not present.   | Yes       | 8              | 19.4       |
|   | No        | 27             | 67.7       |
|   | Not sure  | 5              | 12.9       |
| 11. There is currently no effective cure for COVID-19, but early symptomatic and supportive treatment can help most patients recover                      | Yes       | 30             | 74.2       |
|   | No        | 3              | 6.5        |
|   | Not sure  | 7              | 19.4       |
| 12. Can asymptomatic COVID-19 cases transmit infection to others?   | Yes       | 28             | 71         |
|   | No        | 4              | 9.7        |
|   | Not sure  | 8              | 19.4       |

|  |          |    |      |
|--|----------|----|------|
| 13. Is there any vaccine for COVID-19?                                   | Yes      | 24 | 60   |
|  | No       | 11 | 26.7 |
|  | Not sure | 5  | 13.3 |
| 14. A nasopharyngeal swab testing may confirm the diagnosis.             | Yes      | 32 | 80.6 |
|  | No       | 3  | 6.5  |
|  | Not sure | 5  | 12.9 |
| 15. Can the disease transmit through droplets of an infected individual? | Yes      | 33 | 83.9 |
|  | No       | 3  | 6.4  |
|  | Not sure | 4  | 9.7  |
| 16. Do children and young adults also need preventive measures?          | Yes      | 35 | 87.1 |
|  | No       | 2  | 6.4  |
|  | Not sure | 3  | 6.5  |

**Table 2:** Knowledge Regarding COVID-19 in Clinical Placement.

Shows It was established from the study table 2 that the majority of the participants have enough knowledge regarding COVID-19 as (67.7%) of the participants know what is COVID-19 and what causes COVID-19, (64.5%) of the participants from the study showed that they know that masks and hand-gloves are fruitful in prevention of the infection, (87.1%) knows that COVID-19 makes the condition worse among elderly and people with commodities, (67.7%) of the participants knows that COVID-19 can be transmitted even when fever is absent and (71%) knows that asymptomatic COVID-19 can also be transmitted, (87.1%) knows that everyone needs preventative measures, (83.3%) knows that the virus is transmitted through droplets and (80.6%) from the study shows that they know that COVID-19 diagnosis is confirmed by a nasopharyngeal swab testing. By looking at the results in percentile from the study it showed that

the majority of the participants have knowledge regarding COVID-19 this finding is similar to the study conducted by Giao, et al. [3] on the knowledge and attitude toward COVID-19 among healthcare workers at district hospital in China, which showed that most of the healthcare workers had good knowledge and positive attitude toward COVID-19.

Based on the findings of the study it shows that majority of the participants (76.7%), knows that the main clinical symptoms of COVID-19 are fever, fatigue, dry cough and myalgia portraying a good level of knowledge regarding COVID-19 signs and symptoms. The study done by WHO [4] Situation Report No 34 defined a suspected case of COVID-19 as a patient with acute respiratory illness, fever, and at least one sign or symptom of respiratory disease e.g. shortness of breath, cough.

| Questions   | Responses | Frequency (40) | Percentage |
|---|-----------|----------------|------------|
| 1. Do you wash your hands frequently with soap and water for at least 20 to 40 seconds?                     | Yes       | 26             | 64.5       |
| 2. Do you follow the social distancing to avoid contact of the infected persons?                            | Yes       | 28             | 71         |
|   | no        | 3              | 6.5        |
| 3. Do you avoid going to crowded places?  | yes       | 22             | 54.8       |
|   | no        | 4              | 9.7        |
| 4. Do you practice good respiratory hygiene and avoid touching the eyes, nose or mouth with unwashed hands< | yes       | 23             | 58.1       |
| 5. Do you wear your mask every time you go outside  | yes       | 25             | 61.3       |
|   | no        | 0              | 0          |

|  |           |    |      |
|--|-----------|----|------|
| 6. Do you always carry your sanitizer?                           | yes       | 25 | 61.3 |
|  | no        | 3  | 6.4  |
|  | sometimes | 12 | 32.3 |
| 7. Do you avoid hand shaking and touching surfaces unnecessarily | yes       | 26 | 63.5 |
|  | no        | 1  | 3.4  |
|  | sometimes | 13 | 33.3 |
| 8. Do you change or wash your mask frequently?                   | yes       | 35 | 87.1 |
|  | no        | 1  | 3.2  |
|  | sometimes | 4  | 9.7  |
| 9. Do you always practice social distancing?                     | yes       | 23 | 58.1 |
|  | no        | 0  | 0    |
|  | sometimes | 17 | 41.9 |

**Table 3:** Practice Regarding COVID-19 in Clinical Placement.

Shows from the study the results in table 3 indicated that majority of the participants do safe practices regarding COVID-19 like the study shows that (64.5%) of the participants washes their hands with soap and water for at least 20 to 20 seconds to prevent the spread of the infection, (71%) follows the social distancing to avoid contact with infected persons, (61.3%) wears their mask when going outside and always carries their sanitizers which is not a satisfactory percentage as everyone is supposed to put on their masks when outdoors and always carry their sanitizer to disinfect their hands when they touch something, (87.1%) of the participants washes or changes their masks frequently which is a good practice to prevent inhaling in of the virus from prolonged use and contamination of masks. Only (54.8%) avoids going to crowded places and only (58.1%) practice good respiratory hygiene and avoid touching eyes, nose, or mouth with unwashed hand and the average of (63.3) avoid hand shaking and touching surfaces unnecessarily. According to this finding from the study it is noted that participants practice safe practices regarding COVID-19 but only the average number of participants do it which is not enough in aiding with the prevention of the spread of COVID-19. According to the study conducted by Wong, et al. [5] performing the preventive measure to control COVID-19 infection is the most critical intervention, which includes, hand-washing, facility cleaning, respiratory hygiene, national travel advice, communicating and promoting the message 'stay at home' and meetings and event arrangements. People should practice more of this practice to aid with the spread of the virus.

## Conclusion

The study findings were presented in relation to literature review. The findings were predicted and are supported by the literature. The research added to the

literature by providing a more detailed level of knowledge that the students portrayed towards COVID-19 and more details on how often safe practices regarding COVID-19 are practiced. The study indicated that students have sufficient knowledge regarding COVID-9 but only practice average of the practices recommended in aiding the spread of COVID-19 [6-9].

## Recommendations

1. All the nursing students should be provided with masks and sanitizers before going for practical by UNAM as not all students can afford to by masks.
2. Department of nursing clinical preceptors should ensure that all UNAM students are taught and knows how to practice hand washing technique.
3. All students to wear their masks and carries their sanitizers at all times.
4. The MoHSS to ensure that healthcare workers are provided with masks regularly.
5. The MoHSS to ensure that adequate training of safe practices is provided to all healthcare workers and the community.

## For Further Research

1. Further research should be conducted on the effect of COVID-19 vaccine on humans..
2. Rate of survival of COVID-19 in a dead body.
3. Why children rarely get infected by COVID-19.

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