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Short Communication

Perceptions of undergraduate student nurses on e-learning at University of Namibia Main Campus, Windhoek: a lesson learnt from the COVID-19 pandemic

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ABSTRACT

The aim of the study was to explore and describe the perceptions of second year nursing degree student's academic performance through e-learning during COVID-19 pandemic at University of Namibia Main Campus, Windhoek. A qualitative research design was adopted and a total number of sixteen (16) second-year nursing students were interviewed. An interview guide, an audio recorder and field notes were used as the data collection instruments. Convenience, purposive sampling was employed. Key themes which emerged from the study were: Student nurse's perceptions regarding their e-learning experience; Student nurse's perceptions regarding the availability of studying and learning resources such as gadgets and internet, Student nurses' perceptions of the e-learning environment. The study revealed that student nurses during e-learning were negatively affected by many factors, such as lack of electronic resources (laptops, smart phones), low phone storage to download big files, slow internet connections/poor network coverage for telecom network (TN) in some areas, limited internet data (TN mobile 10 GB) provided by the institution monthly, limited time to complete online assessment, less effort from lecturers (dropping notes on the forum and not teaching compared to face-to-face learning), workload at home doing house chores and not excused for online lessons, living in remote areas with no electricity, cheating of students during online tests and assessments. The study recommends an increased in the amount of internet for telecom network (TN mobile) data provided monthly by the institution, lecturers to give sufficient time to complete online tests and assessments, and to develop a system that detects cheating.

Keywords: Academic performance, COVID-19, E-learning, Nursing students, Perceptions

INTRODUCTION

Coronavirus disease (COVID-19) is a contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Symptoms of COVID-19 are variable, but often include fever, cough, headache, fatigue, breathing difficulties, and loss of smell and taste. Symptoms may begin one to fourteen days after exposure to the virus. At least a third of people who are infected do not develop noticeable symptoms. As stated in the Centers for Disease Control and Prevention report for symptoms of corona virus report transmission of COVID-19 occurs when people are exposed to virus-containing respiratory droplets and airborne particles exhaled by an infected

person. Those particles may be inhaled or may reach the mouth, nose, or eyes of a person through touching or direct deposition (i.e., being coughed on). The risk of infection is highest when people are in close proximity for a long time, but particles can be inhaled over longer distances, particularly indoors in poorly ventilated and crowded spaces. In those conditions small particles can remain suspended in the air for minutes to hours. Touching a contaminated surface or object may lead to infection although this does not contribute substantially to transmission.[1-3]

Several testing methods have been developed to diagnose the disease. The standard diagnostic method is by detection of the virus' nucleic acid by real-time reverse transcription polymerase chain reaction (rRT-PCR), transcription-mediated amplification (TMA), or by reverse transcription loop-mediated isothermal amplification (RT-LAMP) from a nasopharyngeal swab.

Preventive measures include physical or social distancing, quarantining and ventilation of indoor spaces, covering coughs and sneezes, hand washing, and keeping unwashed hands away from the face. The use of hand disinfectant sanitizers, face masks or coverings has been recommended in public settings to minimize the risk of transmissions. Several vaccines have been developed and many countries have initiated mass vaccination campaigns. Currently, there are newly implemented vaccines namely, Mrna, protein subunit vaccines and vector vaccines. They are all administered differently and help the body develop immunity to viruses that cause COVID-19.[3]

The first known case was identified in Wuhan, China in December 2019. The COVID-19 pandemic in Namibia is part of the worldwide pandemic of coronavirus disease 2019 (COVID-19). The Minister of Health and Social Services, Dr. Kalumbi Shangula, announced on 14 March 2020 that the virus had reached Namibia. A Romanian couple constituted the two first cases and recovered 79 days after their initial diagnosis (Elsevier Novel Coronavirus Information Centre, 2020). In Namibia, from 03 January 2020 to 1:23 pm CEST, 11 June 2021, there have been 61,374 confirmed cases of COVID-19 with 968 deaths, reported to WHO. As of 10 June 2021, 93,061 vaccine doses have been administered.[3,4]

On 17 March 2020, President Hage Geingob declared a state of emergency which introduced measures such as the closure of all borders, schools, suspension of gatherings and economic related resolutions. The Ministry of Health and Social Services also established an Emergency Response team, operating 24/7, which aimed to intensify the surveillance of COVID-19 in the country, especially at the borders of Namibia. On 28 March 2020, the country went into a full lockdown.

Nursing requires integration of practical and theoretical knowledge because clinical practice is a very important component of professional development of nursing students. It is therefore important that nursing education and training of student nurses should consist of theory and practice. Theory is taught in the classroom, which now emerged to e-learning, while the clinical practice is mainly taught in hospitals, health centers and clinics where students learn to apply theory into practice. Clinical teaching further uses the theory of nursing to plan nursing care, while guiding learners in planning and execute nursing policies.

The COVID-19 pandemic affected nursing students learning drastically, especially when the clinical sites and the face- to face teaching modes were discontinued. This necessitated a move to virtual classrooms and virtual clinical experiences.

Similar to global trends, the University of Namibia (UNAM) responded to the rising number of positive cases by fully migrating to online learning for all the courses. As part of student support, students were provided online data bundles of 10 GB per month, as well as pocket Wi-Fi. However, it is a known fact that E-learning initiatives in Africa are often not well planned, seemingly based on a “anything is better than nothing” strategy. UNAM was not an exception, as despite these efforts, there was still a challenge for the students that live in rural areas, because they do not have enough network coverage. Moreover, some students did not have the learning resources such as digital resources; thus, it was difficult for them to access their courses.[5]

This study was concerned with the perception of COVID-19 pandemic on the academic performance of second year nursing students at UNAM main campus, Windhoek. This led to the study to explore and describe the perceptions of second year nursing degree student’s academic performance through e-learning during COVID-19 pandemic at University of Namibia main campus, Windhoek.

METHODS

Study design

The researcher utilized qualitative, descriptive, and exploratory design to describe the impact of COVID-19 on second year nursing degree students’ academic performance through e learning at UNAM main campus, Windhoek.

Study place

The study was conducted at the School of Nursing and Public Health at the University of Namibia Main Campus, Windhoek.

Study period

Research study was conducted from 01 August to 31 August 2021.

Study population

The population of this study consisted of 99 undergraduate Bachelor of Nursing degree second year students at the University of Namibia main campus Windhoek.

Sample size

The population of this study consisted of 99 undergraduate Bachelor of Nursing degree second year students at the University of Namibia main campus Windhoek.

Sample size calculation

Two focus groups of an equal number of 8 participants. In total 16 students were interviewed until data saturation was reached.

Subjects and selection method

The researcher has employed non-probability purposive sampling to select participants for this study. 16 students were interviewed until data saturation was reached.

Inclusion criteria

The undergraduate Bachelor of Nursing degree second year students, who volunteered and were willing to participate in the study were included.

Exclusion criteria

The undergraduate Bachelor of Nursing degree second year students, who do not volunteered and were not willing to participate in the study were excluded.

Data collection

Research instrument

The researcher prepared by planning beforehand to conduct face to face individual interviews and focus group discussions. Each focus group consisted of not more than eight participants. The researcher designed an interview and focus group discussion guide which have been confirmed by the supervisor.

Pilot study

A pilot study was conducted at central hospital during clinical practice with second year nursing students who were not part of the study. The population of the pilot study comprised of three (3) second year degree nursing students respectively.

The pilot study interviews were recorded, and field notes were taken to pre- test the audio tape recorder and to assist the researcher on the technique to be used during the actual interviews.

Data collection procedure

The researcher approached all second year undergraduate Bachelor nursing students through their School class WhatsApp group during a time which has been arranged with the class representative to invite them for voluntary participation. The researcher and the prospect participants have agreed on a suitable date and time for the individual face to face interviews. The participants provided verbal permission and explained regarding the voluntary participation and that they can withdraw anytime if they so wish. The entire data collection took place as from the 01 August to 31 August 2021, in the lecture rooms of the School of Nursing and Public Health. The details were explained by the researcher, including the recording of discussions. The interviews with individuals from each of the second-year students have been conducted until data saturation was reached. Data collection proceedings were audios/WhatsApp voice notes recorded with permission from the participants.

Data analysis

Data analysis is conducted to arrange data and give meaning to the data. In a qualitative study, data collection and data analysis may be overlapping as data is analyzed, as it is received.[6,7]

The data collected has been transcribed verbatim, organized, analyzed, and interpreted by the researcher by means of Techs method of data analysis. Field notes has been triangulated with the recorded data. The researcher listened repeatedly to the recorded data to identify main ideas and will assign codes to similar ideas. The related codes have been grouped together and themes and subthemes have been identified and supported by verbatim quotes from participants. Findings have further been presented in the form of an in-depth description, supported by relevant literature control.

Trustworthiness

Trustworthiness is a way of evaluating the quality of validity and rigor in qualitative research. It is about presenting, managing and analyzing data accurately as it is experienced by participants. Trustworthiness of this study has been ensured by using the criteria of credibility, transferability, dependability, and confirmability.[8]

RESULTS

Themes and subthemes

Four major themes with eight related sub-themes emerged, namely: student nurses' e-learning experience; student nurses' perceptions regarding the availability of studying and learning resources such as gadgets; student nurses' perceptions of their e-learning environment and student nurses' perception regarding their lecturer's teaching efforts. Table 1 depicts the themes and sub-themes.

Table 1: Themes and sub-themes.

Themes	Sub-themes	
1.1 Student nurses' negative e-learning experience	1.1.1.	Slow internet connections/poor network coverage for TN in some areas
	1.1.2	Limited internet data (TN mobile 10GB) provided by the institution monthly
	1.1.3	Limited time to complete online assessments
1.2 Student nurses' perceptions regarding the availability of studying and learning resources	1.2.1	Lack of electronic resources (laptops, smart phones)
	1.2.2	Low phone storage to download big files
1.3 Student nurses' perceptions of their e-learning environment	1.3.1	Workload at home, doing house chores and not excused for online lessons
	1.3.2	Living in remote areas with no electricity
1.4 Student nurses' perception regarding their lecturer's teaching efforts	1.4.1	Less effort from lecturers (dropping notes on the moodle and not teaching compared to face-to-face learning)
	1.4.2	Cheating of students during online tests and assessments

DISCUSSION

Theme 1: Student nurses' e-learning experience

The study results revealed that second year nursing degree students had a bad experience with online learning. The transferring of all programs to the online platforms has created a new problem, inequality in access to learning. While students may use their mobile phones for access, the type and capacity of the device is a problem, due to insufficient memory space to download the platforms used for learning. The battery life of these devices is also a limitation. The study further revealed that students are not content with the 10 GB TN mobile data that they receive from the institution monthly, as this is merely enough to take them through until month end for them to complete all their online assessments.[9]

In this context, the following were narrated by some participants: "I have a bad experience regarding this online learning, compared to face-to-face". "I'm not happy with it. We get 10 GB monthly telecommunications company TN mobile data from UNAM, but this is not enough for all online assessments, especially the zoom platform".

"The telecommunications company TN mobile network is very slow in some areas, and it trips a lot especially when I'm writing a test online, this can cause one to be kicked out of a test or not end up completing as the time is running and minutes are getting depleted whilst the test is still loading".

Theme 2: Student nurses' perceptions regarding the availability of studying and learning resources

While students may use their mobile phones to access, the type and capacity of the device is a problem; due to insufficient memory space to download the platforms used for learning. The battery life of these devices is also a limitation. Many students lived in distant geographical areas with limited or no access to the Internet, inadequate financial resources, do not own the required textbooks, depended heavily on campus libraries and do not own computers.[9]

In this context, the following participants' respondents as follow: "I was not having a smart phone or laptop; thus, I was always behind with my school work."

Theme 3: Student nurses' perceptions of their e-learning environment

In the context of the aforementioned findings, the following verbatim remarks were made by participants: "Learning from home is very distractive and disruptive." "People don't always take the online learning serious and thus always think one is using studying or attending class online as an excuse to avoid doing house chores." "Some of us were in remote where electricity and network was a struggle, and we couldn't really keep up with schoolwork and this affected my grades very bad."

Theme 4: Student nurses' perception regarding their lecturer's teaching efforts

Fear of academic year loss is the key responsible factor for psychological distress during COVID-19. Poor motivation by the instructors and higher expectations of students makes effective e-Learning systems crack-up. Students are not equivalent to a single classroom from different perspectives**.** Another issue brought about by the transferring to online delivery and the temporary suspension of clinical teaching which led to the extension in the length of programme.[9] Initially, students had registered for a four-year program. In the current situation, it is estimated that the program will be extended for at least an additional semester to facilitate the much-needed clinical experience and the clinical hours required by the governing bodies.

In this context, the following were narrated by some participants: "Lecturers don't put enough effort in teaching online as compared to face-to-face classes". "They just upload notes on Moodle and tell you to download and to do self-study". "This is not good because notes are not well explained, and I need more knowledge on a topic in order for me to understand." "Sometimes they just drop notes on the forum and are never online when you want to ask questions."

Limitations

The study was limited to the 2nd year degree nursing students at the University of Namibia, main campus, Windhoek only, therefore data cannot be generalized to other nursing students and campuses of the university.

Areas for further research

Further studies need to be undertaken in other campuses in other parts of Namibia and compare such perceptions across UNAM campuses.

CONCLUSION

The study provided valuable insight into the perceptions of students regarding their role during online teaching and learning. There was a need for research in this regard, therefore it is expected that this research will contribute to this body of knowledge. In conclusion, the researcher recommended provision of sufficient data, adequate/enough time to complete assessments, as well as for possible future research.

Recommendations

Recommendations made regarding the possible improvement of e-learning. The study recommends an increase in the amount of internet (TN mobile) data provided monthly by the institution, lecturers to give sufficient time to complete online tests and assessments and to develop a system that detects cheating. This in turn will accommodate all nursing second year students on the moodle platforms and will allow them to download enough study materials that will help them understand better and give them sufficient time to properly complete their assessments.

UNAM should provide study materials such as extended borrowing time of library books and come up with a donating foundation of laptops to the less privileged and second year nursing students from disadvantaged backgrounds.

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