

Perceptions of Nursing Students Regarding Clinical Teaching and Learning During COVID-19 at Selected Higher Education Institutions in Lesotho

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Research Article

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Abstract

Nursing students and their clinical instructors in higher education institutions are faced with challenges regarding their clinical teaching and learning strategies during the COVID-19 pandemic. This study aimed to determine the perceptions of nursing students regarding clinical teaching and learning during the COVID-19 pandemic. A non-experimental descriptive quantitative research design was used to collect data from 300 nursing students who were enrolled at selected higher education institutions in the 2021/22 academic year in Lesotho. Convenience sampling was used to recruit the respondents who completed a structured self-report questionnaire. Permission to conduct the study was granted by relevant authorities (ID147-2021). Data were analysed using the Statistical Package of Social Sciences (SPSS vs 23) and presented using tables and graphs and described analytically. The findings of the current study show that the minimum age of participants was 19 years and the maximum age was 39 years. The majority of respondents were female (69%: n=207) and studying for a BSc degree in Nursing and Midwifery (49%: n=146). Most nursing students had adequate knowledge, skills, and attitudes to prevent Covid-19 in the clinical area and simulation laboratories. They felt that clinical instructors and preceptors were available and competent to assist them in completing their clinical competencies and procedure file logbooks. Nursing students gained expertise in performing clinical procedures as they were able to perform return demonstrations in the simulation laboratory and clinical areas. Whilst clinical facilities and simulation laboratories had adequate Covid-19 prevention protocols and tools, there was inadequate personal protective equipment available. Conclusively, the perceptions of nursing students regarding clinical teaching and learning during Covid-19 were positive. More support for adequate personal protective equipment for nursing students remains crucial.

Introduction

The COVID-19 pandemic brought significant interruption to nursing students' education and training (1). In response, clinical instructors around the world are scrambling to familiarize themselves in ways that facilitate the ongoing knowledge, skills, and attitude development of the nursing students in the clinical placements while social distancing and other measures are distracting standard practices (2). Rose (3) suggested that this pandemic presents practical and logistical challenges and concerns for patient safety in the hospital, knowing that nursing students may spread the virus when asymptomatic and may acquire the virus in the course of nursing training. Therefore, this creates unprecedented clinical teaching and learning opportunities for nursing students in terms of exposure to special situations that encourage creativity and initiative (4, 5).

According to Jamshidi et al. (6), nursing education is composed of two complementary parts; theoretical training and practical training experiences that enable nursing students to acquire knowledge, skills, and attitudes for providing nursing care to patients. Therefore, nursing students' competence is based on knowledge and skills taught to them by the clinical instructors (7). Consequently, a large part of nursing education is carried out in the clinical environments as nursing is a performance-based profession hence clinical learning environments play an important role in the acquisition of professional abilities and skills

in caring for patients(7). Furthermore, Phillips et al. (8) suggested that clinical learning environments provide nursing students with opportunities to practice and become proficient in the knowledge and skills essential for professional practice. Additionally, Jamshidi et al. (6) stated that clinical learning environment provides an opportunity for nursing students to learn experimentally and to convert theoretical knowledge to a variety of mental, psychological, and psychomotor skills which are crucial for the patient care

The contagious nature of COVID-19 has prohibited nursing students from being active members of clinical teams as hospitals attempts to minimize non-essential staffing in clinical environments, which compromised their clinical teaching and learning (9, 5). Conversely, Woolliscroft (10) stated that despite the educational value and diversity of available online resources, lack of bedside training compromises students' direct involvement with patients, which could have optimized their physical examination skills as well as several non-technical skills. Furthermore, Koumpouras and Helfgott (11) added that patients' clinical assessments are halted in virtual reality, preventing nursing students' engagement with feedback through direct observation of clinical skills or supervised learning events by their nurse clinical instructor.

Problem Statement

COVID-19 has relentlessly spread even in the least developed countries, severely disrupting the lives of people living in their dominions, which have not developed effective virtual reality or online platforms to effectively respond to the current challenges presented by the pandemic (12). This brought nursing students' clinical and theoretical education to be disproportionately affected as many institutions closed campuses (9). Woolliscroft (10) stated that the shortage of coronavirus tests and personal protective equipment, as well as suspension of regular clinical care such as out-patient clinics or elective surgeries, has precluded students from being active members of clinical teams as hospitals attempt to minimize non-essential staffing in clinical environments. However, Ansari et al. (13) asserted that various education departments across the world took measures to advise the HEIs to transform all academic teaching online. In addition, Wooliscroft (10) reported that despite the educational value and diversity of available online resources, the lack of bedside nursing training compromises students' direct involvement with patients which could optimize their physical examination skills. Conversely, students perceived that the virtual environment was appealing, enjoyed using the virtual environment, and perceived that the virtual environment was fast (14).

Currently, there is no data or Evidence-Based Research (EBR) on the perceptions of nursing students and their clinical instructors regarding clinical teaching and learning strategies during COVID-19 in Lesotho. In summary, it appears that nursing students and their clinical instructors in HEI's are faced with challenges regarding their clinical teaching and learning strategies during the COVID-19 pandemic. This study, therefore, sought to gain insight into perceptions of nursing students regarding clinical teaching and learning during COVID-19 at the selected HEIs in Lesotho.

Purpose Of The Study

The purpose of this study was to describe the perceptions of nursing students regarding clinical teaching and learning during COVID-19 at selected HEIs in Lesotho. The objective of this study was to describe nursing students' views regarding clinical teaching and learning during COVID-19.

Methodology

A non-experimental descriptive quantitative research design was used to collect data from 300 nursing students who were enrolled at selected higher education institutions in the 2021/22 academic year in Lesotho. Convenience sampling was used to recruit the respondents who completed a structured self-report questionnaire. A pre-test of the data collection tool was conducted to ensure validity and reliability. Permission to conduct the study was granted by the National University of Lesotho (NUL) Institutional Research Board (IRB) and the Lesotho Ministry of Health Research and Ethics Committee for approval (ID147-2021). Written informed consent was given by the respondents who identified using codes. All research data was encrypted and stored in a lockable cupboard. Virtues of sensitivity, respect, and patience were applied during contact periods with respondents. Respondents were asked to voluntarily take part in the study and could withdraw without any prejudice. Data were analysed using the Statistical Package of Social Sciences (SPSS vs 23) and presented using tables and graphs and described analytically.

Results

Demographic Information

A total of 276 students out of 300 provided their age. The minimum age was 19 years and the maximum was 39 years (Range 20 years). The mean age was 23 years (± 3). Males constituted 29% (n=86), females were 69% (n=207), less than 1% (n=1) selected other, whilst 2% (n=6) did not provide an answer. Majority (80%: n=240) of the nursing students were single, 9% (n=26) were married, 1% (n=4) were engaged, 2% (n=6) were cohabiting, 7% (n=21) preferred not to say, whilst 1% (n=3) did not answer. The majority (49%: n=146) of the nursing students were studying for a BSc degree in Nursing and Midwifery, 0.3% were studying for a Bachelor degree in Nursing, 26% (n=79) were studying for a Diploma in General Nursing, 23% (n=70) were studying for a Diploma in Midwifery, whilst 0.7% (n=2) were studying for a Master degree in Nursing. The majority, (93%: n=279) were Christian, 2% (n=5) were African Traditionalists, 1% (n=3) were either Muslim, selected Other, or did not provide an answer, whilst less than 1% (n=1) were Hindu.

Perceptions of students on clinical teaching and learning during Covid-19

When asked of they had adequate knowledge on Covid-19, majority (54%: n=163) of the students agreed, 29% (n=87) strongly agreed, 11% (n=33) were not sure, 3% (n=9) disagreed, 2% (n=5) strongly disagreed,

whilst 1% (n=3) did not answer. The perceptions on adequate knowledge on Covid-19 were not associated with the training programme [$\chi^2(25, N=300) = 27.45, p > 0.05$].

When asked if they had adequate skills and knowledge to prevent Covid-19 in the simulation laboratory, a majority (51%: 153) of the students agreed, 27% (n=81) strongly agreed, 15% (n=45) were not sure, 5% (n=14) strongly disagreed, 2% (n=6) disagreed, whilst less than 1% (n=1) did not answer. The perceptions on adequate skills and knowledge were associated with the training programme [$\chi^2(30, N=300) = 52.56, p < 0.05$].

When asked if they had adequate skills and attitudes to prevent Covid-19 in the clinical area, a majority (53% (n=153) of the students agreed, 26% (n=77) strongly agreed, 14% (n=40) were not sure, 4% (n=13) strongly disagreed, 3% (n=10) disagreed, whilst less than 1% (n=1) did not answer. The perceptions on skills and attitudes to prevent Covid-19 in the clinical area were associated with the training programme [$\chi^2(25, N=300) = 55.6, p < 0.05$].

When asked if there was adequate personal protective equipment in the simulation laboratory, a majority (33%: n=99) of the students disagreed, 23% (n=67) strongly disagreed, 21% (n=64) were not sure, 19% (n=58) agreed, whilst 4% (n=12) strongly agreed. Perceptions on adequate PPE in simulation laboratory were associated with the training programme [$\chi^2(20, N = 300) = 51.87, p < 0.05$].

When asked if there was adequate personal protective equipment in the clinical area, a majority 24% (n=71) of the students strongly disagreed, 24% (n=71) disagreed, 31% (n=92) agreed, 12% (n=37) strongly agreed, 9% (n=28) were not sure, whilst less than 1% (n=1) did not answer. Perceptions on adequate PPE in the clinical area were associated with the training programme [$\chi^2(25, N = 300) = 72.69, p < 0.05$].

When asked if clinical instructors were available at the simulation laboratory, a majority (49%: n=145) of the students agreed, 22% (n=67) strongly agreed, 10% (n=30) were not sure, 8% (n=23) strongly disagreed, 8% (n=25) disagreed, whilst 3% (n=10) did not answer. Perceptions on availability of clinical instructors in the simulation laboratory were associated with the training programme [$\chi^2(25, N = 300) = 70.4, p < 0.05$].

When asked if clinical instructors were available at the clinical area, a majority (41%: n=145) of the students agreed, 12% (n=35) strongly agreed, 23% (n=69) disagreed, 16% (n=48) strongly disagreed, 6% (n=18) were not sure, whilst 2% (n=5) did not answer. Perceptions on availability of clinical instructors in the clinical area were associated with the training programme [$\chi^2(25, N = 300) = 41.61, p < 0.05$].

When asked if preceptors were available in the clinical area, a majority (41% (n=123) of the students agreed, 10% (n=29) strongly agreed, 24% (n=71) were not sure, 12% (n=38) disagreed, 9% (n=28) strongly disagreed, 4% (n=11) did not answer. Perceptions on availability of preceptors in the clinical area were not associated with the training programme [$\chi^2(25, N = 300) = 22.38, p > 0.05$].

When asked if they were able to perform return demonstration in the simulation laboratory, majority, (40%: n=149) of the students agreed, 26% (n=77) strongly agreed, 10% (n=30) disagreed, 6% (n=18) strongly

disagreed, 6% (n=18) were not sure, whilst 3% (n=9) did not answer. Perceptions whether return demonstrations were performed in the simulation laboratory were not associated with the training programme [$\chi^2(35, N = 300) = 38.37, p > 0.05$].

When asked if they were able to perform return demonstrations in the clinical area, majority (48%: n=143) of the students agreed, 29% (n=88) strongly agreed, 10% (n=30) disagreed, 4% (n=12) strongly disagreed, 7% (n=21) were not sure, whilst 2% (n=6) did not answer. Perceptions on whether return demonstrations were performed in the clinical area were not associated with the training programme [$\chi^2(25, N = 300) = 31.6, p > 0.05$].

When asked if they were able to complete all the required clinical competencies in the previous academic year, majority, (30%: n=91) of the students agreed, 16% (n=47) strongly agreed, 24% (n=71) disagreed, 14% (n=43) strongly disagreed, 15% (n=44) were not sure, whilst 1% (n=4) did not answer. Perceptions on whether they completed all clinical competencies in the previous academic year were associated with the training programme [$\chi^2(30, N = 300) = 52.35, p < 0.05$].

When asked if there were adequate Covid-19 prevention protocols at the clinical facility, majority, (48%: n=145) of the students agreed, 15% (n=45) strongly agreed, 18% (n=53) disagreed, 4% (n=13) strongly disagreed, 13% (n=38) were not sure, whilst 2% (n=6) did not answer. Perceptions on the adequacy of Covid-19 prevention protocols were associated with the training programme [$\chi^2(25, N = 300) = 39.8, p < 0.05$].

When asked if clinical teaching during Covid-19 allowed them to gain expertise in performing clinical procedures, majority, (38% (n=115) of the students agreed, 10% (n=30) strongly agreed, 21% (n=63) disagreed, 16% (n=48) strongly disagreed, 14% (n=42) were not sure, whilst 1% (n=3) did not answer. Perceptions on whether clinical teaching allowed them to gain expertise in performing clinical procedures were associated with the training programme [$\chi^2(40, N = 300) = 55.79, p = 0.05$].

When asked if their procedure file log books were completed and submitted, a majority (32%: n=96) of the students agreed, 11% (n=32) strongly agreed, 31% (n=93) disagreed, 11% (n=35) strongly disagreed, 14% (n=41) were not sure, whilst 1% (n=3) did not answer. Perceptions on whether their procedure files were completed and submitted were associated with the training programme [$\chi^2(25, N = 300) = 84.75, p < 0.05$].

When asked if they felt they had received adequate skills through clinical skills training, the majority (38%: n=112) of the students agreed, 6% (n=19) strongly agreed, 29% (n=88) disagreed, 13% (n=39) strongly disagreed, 13% (n=39) were not sure, whilst 1% (n=3) did not answer. Perceptions on whether they had received adequate skills training were not associated with the training programme [$\chi^2(35, N = 300) = 34.14, p > 0.05$].

When asked if they felt their clinical supervisors were competent during the pandemic, majority (49%: n=148) of the students agreed, 7% (n=20) strongly agreed, 16% (n=48) disagreed, 9% (n=26) strongly

disagreed, 18% (n=55) were not sure, whilst 1% (n=3) did not answer. Perception on whether clinical supervisors were competent during the pandemic were not associated with the training programme [$\chi^2(30, N = 300) = 40.2, p > 0.05$].

When asked if there were adequate patients during clinical practice, majority (38% (n=115) of the students agreed, 32% (n=95) strongly agreed, 14% (n=42) disagreed, 7% (n=21) strongly disagreed, 6% (n=18) were not sure, whilst 3% (n=9) did not answer. Perceptions on the adequacy of patients during clinical practice were associated with the training programme [$\chi^2(35, N = 300) = 58.1, p < 0.05$].

Discussion

The findings of the current study show that the minimum age of participants was 19 years and the maximum age was 39 years. This is in line with the study conducted by Michel et al. (15) who reported that the majority (78.8%) of respondents in their study were aged 18 to 23 years. The majority of respondents in this study were female, a finding congruent with Farooq et al. (16) who stated that nursing students and nursing faculty are predominantly female in the situation of cultural context. Other studies (17, 15) also reported that the majority of the respondents were female.

Respondents had positive perceptions as they felt they had adequate knowledge of COVID-19. This is in line with Albaqaroi et al. (18) who reported that nursing students had a good level of knowledge on COVID-19 and this knowledge was gathered from their government, Ministry of Education, and Social media. Similarly, Asaad et al. (19) stated that students reported that MERS-COV is a fatal disease and that healthcare professionals were at high risk of infection. However, Lovric et al. (20) revealed that students described the spread of misinformation on social networks and risky behaviors of the population. It, therefore, remains crucial to provide the students with trusted sources of information on the Covid-19 to prevent distortion.

Whilst respondents perceived that there were adequate Covid-19 prevention protocols in the clinical facility, they felt that there was inadequate personal protective equipment in the clinical areas. This is in line with Choi and Kim (21) who reported that several respondents reported occasional problems with lack of protective masks and medical gloves for nursing interns in the hospital. Respondents had negative perceptions regarding the adequacy of PPE in the simulation laboratory. This is congruent with Ulenaers et al. (22) who indicated that nursing students had experienced shortages of PPE in several clinical sites.

The majority of respondents had positive perceptions of their skills and knowledge to prevent COVID-19 in the simulation laboratory. This is in line with Lovric, et al. (20) who reiterated that students believed that transmission of disease (COVID-19) could be prevented following university precautions given by WHO. Hassan (23) reported that students in Saudi Arabia considered corona-virus to be very deadly, dangerous for humanity, and that preventive measures of isolation were necessary. Respondents had positive perceptions that they had skills and attitudes to prevent COVID-19 in the clinical area. Whilst this

is a positive result in this study, it is in contrast to a study by Alsaif et al. (24) in which final year medical students lacked self-confidence, knowledge, and skills regarding prescribing medications.

Perceptions that clinical instructors were available and competent during pandemic positive either in the simulation laboratory or clinical areas, were positive. This is in contrast to a study by Ulenaers et al. (22) in which students reported that clinical instructors were not always able to provide appropriate supervision in the simulation laboratory due to their insecurities and in line with the study conducted by De Ponti et al. (1) which revealed that clinical instructors were available for clinical skills, respectively. In this study, students felt that preceptors were available in the clinical area. This is contrary to Ulenaers et al. (22) who reported that students had fewer learning opportunities and were insufficiently monitored by their preceptors.

Perceptions that the students were able to perform return demonstrations in the simulation laboratory or clinical areas were positive. This is in contrast to Alsaif et al. (24) who indicated that when 27 medical students performed simulations of the removal of contaminated gloves, only two demonstrated correct donning and doffing techniques. Students had positive perceptions that they completed all clinical competencies in the previous academic year and clinical teaching during COVID-19 allowed them to gain expertise in performing clinical procedures. This is contrary to Farooq et al. (16) who stated that they could not learn clinical skills as they did not have direct patient care and lacked in-person clinical experiences that they deemed necessary to successfully enter the workforce. They also felt that they had adequate COVID-19 prevention tools at the clinical facility. This is contrary to Choi and Kim (21) who stated that's several respondents reported occasional problems with lack of protective masks and medical gloves for nursing interns in the hospital.

Perceptions on whether procedure file logbooks were completed and submitted, they received adequate skills regarding clinical skills training were positive. This is congruent with the study conducted by Fung, et al. (25) and Ulenaers et al. (22) where nursing students perceived they had completed their clinical competencies utilizing virtual simulation programme and they had significant improvements in clinical competencies after attending the online virtual simulation, respectively.

Conclusion

The results of this study show positive progress in nursing education during the Covid-19 pandemic. Nursing students had adequate knowledge, skills, and attitudes to prevent Covid-19 in both the clinical area and simulation laboratories. They felt that clinical instructors and preceptors were available and competent. Nursing students were able to perform return demonstrations, complete all clinical competencies, and gain expertise in performing clinical procedures. They completed and submitted their procedure file books and received adequate clinical skills training. Whilst clinical facilities and simulation laboratories had adequate Covid-19 prevention protocols and tools, there was inadequate personal protective equipment available.

Declarations

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Author Declarations

The authors declare no competing interests.

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