# Adapting Amid Crisis: Unveiling the Virtual Journey of Catholic University Nursing Students

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## ABSTRACT

**Background:** In response to the pandemic, nursing education faced significant challenges as traditional face-to-face learning methods were swiftly replaced with online due to the COVID-19 pandemic.

**Purpose:** The study aimed to explore the virtual skills demonstration experience of the 3rd year nursing students in a catholic university during the COVID-19 pandemic.

**Methods:** A Qualitative research design was employed, involving twelve 3rd year nursing students selected through purposive sampling and interviewed face-to-face using ten researcher-made interview guide questions. Subsequently, different themes emerged after thematic analysis in each category within the experiences of nursing students.

**Results:** In the learning environment, three themes were identified: inaccessibility of the learning environment and materials, lack of interaction and guidance, and varying experiences in terms of flexibility. Financial problems encompassed load expenses, medical equipment and other resources, and school fees. Four themes emerged in skills and knowledge acquisition: limited appreciation of skills; imaginative learning; lack of realism and experience; and varied teaching impact. Finally, in set-up and outcome, themes included: space constraints; preparation and improvisation; unavailable support for assistance; satisfaction with virtual learning; retention of skills and knowledge; and confidence, pressure, and anxiety in performing skills in actual hospital settings.

**Conclusion:** The pandemic required the students and the university to adapt to new learning for skills demonstration. The outcome of the virtual skills demonstration to nursing students had benefits such as acquiring basic knowledge and skills despite limitations and challenges, including lack of hands-on experience, inadequate materials, and the difficulty in transferring skills to real hospital settings, which affected the students' satisfaction, confidence, and performance.

**Keywords:** Pandemic, Related Learning Experience, online learning, satisfaction, challenges

## BACKGROUND

Related Learning Experience (RLE) is a teaching-learning opportunity created to improve nursing students' abilities to apply techniques in various health scenarios. The nursing discipline is different from other health-related professions as it puts theories, information, and learning into practice while establishing nursing students' healthcare abilities under the close supervision of clinical instructors and nurses. Through their return demonstrations in RLE, experiences prepare students to understand and apply clinical theories and principles in practice. However, when the COVID-19 pandemic began in 2019 and was officially recognized as a pandemic by the World Health Organization (WHO) on March 11, 2020, it posed a challenge to nursing education, specifically in this aspect of their training.

According to Memorandum Order No. 14, Series of 2009, published by the Commission on Higher Education (CHED), students enrolled in the Bachelor of Nursing (BSN) program must complete more than 2000 hours of related learning experience. As a result, following graduation, student nurses must possess more than 40 core competency standards and indicators, which cover the memorandum's 11 key areas of responsibility. CHED, using Memorandum Order No. 5 Series of 2008, Section 13.5, encouraged higher education institutions to use virtual methods to meet these goals. The memorandum order states that colleges and universities should have virtual skills laboratories in place to enhance and accompany the related learning experiences of nursing students before they are exposed to experience.

Before the pandemic, all of these theoretical and practical exposures took place in the school's clinical labs and actual hospital experiences. But then the worldwide crisis hit everyone, not just the health sector but also education. Since the coronavirus outbreak spread rapidly to several countries around the world, the learning method of students transitioned from face-to-face to online learning as schools remained committed to ensuring the faculty and students' safety but also recognized the importance of continuity of teaching and learning throughout the pandemic. Because there was no other option, nursing programs, like many others, had to use alternative platforms like learning management systems and web conferencing to deliver traditional didactic content synchronously and asynchronously (Wallace et al., 2021). Consequently, the new learning modality affected the curriculum as it restricted face-to-face learning which is essential for RLE. To mitigate the situation, CHED released another memorandum on the guidelines for adopting and promulgating flexible learning to ensure continuity of education despite the crisis. More specifically, the Commission of Higher Education (CHED) approved and published the criteria on the conduct of related learning experiences of nursing students during the pandemic to which the university has abided.

The pandemic has surely presented enormous and countless obstacles for medical education, as educators had to deliver lectures responsibly while ensuring the reliability and sustainability of the clinical schooling process. According to Ashini et al. (2020), these difficulties have restricted case care due to the focus on COVID-19 patients, limiting the openness of bedside training breaks for medical students. Before this, students had been greatly satisfied receiving a comprehensive, seven-week clinical placement and unique mentorship connections. According to Warne et al. (2010), this arrangement received favorable feedback. Additionally, Jahan et al. (2008) emphasized that effective clinical instructors demonstrate a wide range of qualities, including unwavering dedication, intrinsic drive, proficiency in addressing challenges, adaptability, ingenuity, effective time utilization, strong leadership, and organizational skills, approachability, a commitment to continuous learning, ethical soundness, and the possession of current and pertinent knowledge and competencies.

With the challenges encountered by the abrupt shift from traditional learning to online, the study aimed to understand and explore the virtual skills demonstration experiences of the third-year nursing students in a catholic university during the COVID-19 pandemic. Nevertheless, the results of this study should be viewed with caution because experiences vary from student to student, and this study was only performed at one university. Despite these limitations, this study will shed some light on a much-unsearched area and contributes to our understanding of the RLE experiences of nursing students.

## OBJECTIVES

The study aimed to explore the virtual skills demonstration experience of the 3$^{rd}$ year nursing students in a catholic university during the COVID-19 pandemic in terms of:

a. Learning environment;

b. Financial encounters/problems;

c. Skills and knowledge acquisition; and

d. Set up and outcome

## METHODS

This qualitative study uses a qualitative approach to describe life experiences and give an in-depth understanding of the nursing students' experiences during the virtual skills demonstration in the context of the COVID-19 global health crisis.

The study was conducted in a catholic university in Region 2, Philippines, particularly in the nursing field. This study employed twelve (12) 3$^{rd}$ year nursing students selected to participate in the study knowing that these students had their first-hand return demonstration skills through the virtual method, they could provide the appropriate data and information needed for the study, and these participants were selected according to the inclusion and exclusion criteria made by the researchers. For inclusion criteria, the target respondents are third-year BSN students who attended the RLE virtual classes and can be of any gender. The exclusion criteria included students under 19 years old and above 30 years old; the 4$^{th}$ year nursing students were also not part of the target respondent.

The researchers conducted face-to-face interviews with the study participants utilizing ten (10) researcher-made interview guide questions to gather data. First, participants were asked about their demographic profile and section to determine different responses, emotions, and experiences to virtual skills demonstrations. Then, informed consent was given to the respondents personally to know the detailed information of the study so that they could make an informed and voluntary decision to participate. The researchers assured the participants that their identity was kept confidential. As for the data gathering, the researcher took turns interviewing each participant to ensure that all interviewers interacted with the participants.

In this study, the data was analyzed through thematic analysis to answer and understand the nursing students' virtual skills demonstration experiences during the COVID-19 pandemic. This analysis comprises reading transcriptions and being familiar with the data, thus identifying patterns and meanings across data. At this point, significant statements were identified and highlighted. It was then categorized together to form 15 themes out of the codes and named accordingly.

*Ethical Considerations*

Ethical approval for this study was obtained from the research ethics board of the catholic university where this study was conducted.

*Conflict of Interest*

The researchers confirmed no conflict of interest in this paper. Any institution or organization did not fund the researchers. Also, the researchers excluded the 4th year nursing students, so there was no bias, conflict, or risk of coercion, and the researchers did not depend on their classmates who were close to them to help them finish the study.

*Privacy, Confidentiality, and Data Protection*

No one's name, ID number, or personal identifying information was revealed during the data gathering. All information gathered from the respondents was kept confidential. Participants' dignity was protected, and no research participants were hurt due to the study's conduct. Regarding data protection, all gathered data remained confidential between the researchers and respondents. Only the researchers and the respondents could access the file. Until the whole paper was done, the researchers kept the collected data. All necessary data was destroyed and deleted once the study was completed.

*Management of Vulnerability*

Participants in this study are of legal age and have college-level education. Thus they do not represent a vulnerable group. The informed consent form was used to enlist their participation, and the researchers then chose the qualified participants based on the inclusion criteria. The participants signed the informed consent form in person to confirm their desire to cooperate. The researchers contacted the participants personally; no university official forced them to participate in the study.

*Risk/Benefit Ratio*

Confidentiality and privacy could be compromised if the identity information were intentionally revealed during the discussion of data and reporting. To manage this risk, instead of using their real names, the researchers used the term"informant" (e.g., Informant 1, Informant 2…Informant 12). Regarding the benefits, the study's findings may help us comprehend nursing students' situations and difficulties when demonstrating their virtual skills during the COVID-19 crisis. Additionally, the insights produced can assist educational and teaching authorities in allocating adequate funding and refocus university instruction for nursing students.

*Informed Consent*

The study's objectives and research methods were included in the informed consent. For participants to be completely informed and reconsider freely making judgments about whether or not to participate in the interview, the researchers presented enough information to enable them to grasp the importance of participation in the study. Before any data was collected, informed consent was obtained and signed. The consent was given and retrieved on the same day. After obtaining the informed consent, the researchers asked for consent for the audio and video recording. Participating in this research was at the participant's discretion.

*Terms of References*

Although the institution owns the research output, the authors are the student researchers and the adviser/promoter. Through student research forums, the findings of this study might be shared with other academic institutions. The work will also be submitted to be published in national or international journals.

## RESULTS AND DISCUSSIONS

### A.    Varied Experiences in the Learning Environment

**Theme 1: Inaccessibility of Learning Environment and Materials**

Students expressed challenges in understanding skills in an online learning format compared to traditional face-to-face instruction. According to Hsu (2022) and Hu (2022), nursing students have also concurred that online learning cannot entirely replace face-to-face patient simulation instruction at physical sites, as technical operations and clinical practice are essential to nursing education. The above findings are also similar to the study of Mukasa et al. (2021). Their research revealed that while students may be somewhat equipped to handle e-learning technologies, they may not have been adequately equipped for e-learning activities.

In summary, under the theme, it is evident that nursing students' perceptions of the virtual learning environment in terms of accessibility encompassed a range of viewpoints. While some struggled with aspects like understanding skills, others appreciated the accessibility evident in their online learning, including the availability of learning space and alternative materials. More importantly, students acknowledged the positive aspects of online platforms facilitating their learning process. Once they adjusted to the learning platforms, they appreciated it.

**Theme 2: Lack of Interaction and Guidance**

Interaction and guidance used in this study refer to the communication between nursing students and their clinical instructor and how that instructor supervises the students' online learning. The absence of face-to-face interaction with clinical instructors (CI) was primarily seen as a limitation. Students missed the guidance and support provided by CI during in-person demonstrations, which impacted their learning experience. Since it enables remote learning with simple administration, accessibility, and efficient use of time and resources, instructors and students agree that online learning is a flexible and effective way of education and learning (Mukhtar et al., 2020).

Overall, under the theme, results showed that even though the virtual learning environment provided flexibility and access to alternative resources, it also presented limitations such as limited learning experiences and the lack of in-person interaction and guidance from clinical instructors. Overall, it was apparent that the virtual learning environment negatively affected nursing students' engagement and motivation during virtual skills demonstrations due to the lack of face-to-face interaction, guidance, and hands-on experience.

### Theme 3: Varying Experiences in Terms of Flexibility

In terms of flexibility, there were varying opinions among the nursing students. According to Bdair (2021), the flexibility of online learning, which allows it to be done at a convenient time, was emphasized by both students and academic staff. However, Baticulon et al. (2020) mentioned that it is important to have physical space even when the learning environment is virtual. Yet, not everyone has access to a quiet study space with the same comforts a classroom or library offers. The learning environment must be adequate for students to participate in remote learning satisfactorily (Rotas & Cahapay, 2020).

In summary, results implied that while the virtual learning environment provided flexibility, allowing some students to manage their schedule more effectively and prioritize their tasks, it also presented limitations such as limited learning experiences, disturbances, equipment and space constraints, and the lack of in-person interaction and guidance from clinical instructors. The need for personal space and the impact of external factors on concentration emphasized the importance of creating conducive learning environments.

### B.    Financial Problems/Encounters

### Theme 1: Load Expenses

Due to the dependence on e-learning platforms, instructors and students must have a strong internet connection (Minghat et al., 2020). However, Nikpeyma et al. (2021) discovered that internet packages are pricey, making them unaffordable for students. Additionally, because of the slow internet connection and short subscription periods, it takes a long time to get scientific material. As some students attempted to purchase additional internet allowances for better connectivity, it occasionally resulted in an additional financial strain (Nuuyoma et al., 2023). Likewise, Mukhtar et al. (2020) found that challenges with internet access negatively impacted online learning. Thus, this was considered a top concern.

The theme, *Load Expenses,* involved how the participants described their concerns about purchasing internet data and accessing Wi-Fi to stay connected during the online class. This was a financial burden for students and hindered their ability to participate fully in online classes.

### Theme 2: Medical Equipment and Other Resources

The pandemic led to financial constraints, particularly when purchasing expensive medical equipment for virtual skills demonstrations. As a result, some students resorted to improvising or using alternative items, such as toy syringes, instead of actual medical equipment. According to Agu et al. (2021), inadequate financial resources as a gap in attaining effective clinical skills competency with online teaching. Despite this limitation, Berdida et al. (2023) discovered the creativity and resourcefulness of nursing students in creating a low-cost simulator during online learning. It was shown in their study that nursing students utilized household tools, including pillows as patients, wires and straw strings as umbilical cord, etc.

In summary, the need for *Medical Equipment and other resources* highlights the financial disparities of nursing students. The need for improvised alternatives affected the students' deeper understanding of the material motivation and overall performance in virtual skills demonstrations.

### Theme 3: School Fees

With financial support from the students' families regarding tuition, load, and equipment, nursing students could participate in online classes and virtual demonstrations. While not directly encountering financial problems, some students mentioned receiving financial support from family who helped cover their expenses. This support alleviated their financial burdens and allowed them to focus on their studies. According to Gao et al. (2021), an important component of family support for online learning is parental involvement in finding solutions to learning challenges, including purchasing and upkeep of online learning equipment and providing a reliable network.

In summary, even though students faced financial disparities and challenges during the virtual skills demonstration, it was also highlighted that financial support from family members eased their financial burdens.

### C.    Skills and Knowledge Acquisition

### Theme 1: Limited Appreciation of Skills

Nursing students' capability to do a return demonstration is not appreciated. Nursing students felt less motivated due to the lack of resources and the use of household items during their virtual skills demonstration. On the positive side, the students are more likely to develop their sense of creativeness and

innovation to create materials to perform better in virtual skills demonstration. The study by Wallace et al. (2021) found that the transition of the learning method had enhanced the resourcefulness and creativity of many students. Distance learning made the students independent, had their self-directed learning, and practiced their skills using improvised items.

In summary, under the theme, it was evident that the participants felt frustrated with the limitations of virtual skills demonstrations due to inadequate resources. Still, this limitation made the students more creative with the materials they used to appreciate and perform better the demonstration.

**Theme 2: Imaginative Learning**

Using imagination to compensate for the lack of practical experience, students developed their techniques, sought additional resources to enhance their understanding of the skills, and utilized critical thinking to understand the virtual skills demonstration. This theme emphasized the importance of visualization and imagination in gaining knowledge and making up for the limitations of virtual learning. An article states that imagination allows students to see beyond the present constraints and envision what might be possible in the future (PBS Education Blog). This is especially important when it comes to virtual learning, where students may lack the hands-on experiences that help to drive their imaginations.

While virtual learning can be flawed, it is important for learning to be designed with imagination and creativity in mind rather than simply relying on technology to enhance learning.

**Theme 3: Lack of Realism and Experience**

One vital factor that influenced skills and knowledge acquisition during COVID-19 was the lack of appropriate sensation and experience in a clinical setting. Similar to the study by Kim et al. (2021), the student-respondents pointed out that the lack of direct patient interaction impacted realism because there was no chance to develop rapport with patients. The informants expressed that using dolls and teddy bears as patients did not provide the same level of realism or make them feel like real nurses. They mentioned specific skills like Leopold's maneuver and enema, where the lack of practical experience hindered their perception of the skills.

The theme unveiled that the participants see the importance of hands-on experience and practical training in nursing students because the lack of practical training opportunities during this time may hinder the development of specific skills and competencies, which can affect the readiness and progression of nursing students in actual settings.

**Theme 4: Varied Teaching Impact**

Teaching is a crucial concept in a virtual learning environment. Students acknowledged the impact of different clinical instructors on their learning. They mentioned that some instructors were highly effective and motivated them to learn, while others posed challenges in grasping the content and demonstrations. It has been discovered that the best emotional learning environment for students is fostered by a trusting connection, characterized as a developmental relationship in which the clinical instructor offers advice and supports the students' learning as they develop into successful and productive nurses (Hou et al. 2010).

In conclusion, the theme emphasized how crucial clinical instructors are to nursing students' overall clinical experiences and how they help them advance their knowledge and abilities, particularly during the pandemic. Fortunately, some instructors help nursing students to perform well in virtual skills demonstrations even if some do not.

**D. Set-up and Outcome**

**Theme 1: Space Constraints, Preparation, and Improvisation**

During the COVID-19 pandemic, space constraints became significant due to nursing students' need to follow protocols and maintain social distancing, and this is the reason why nursing students made a temporary space from their homes. These constraints limited the opportunities of the nursing students to engage their full potential to demonstrate skills and affected their ability to perform certain skills properly. However, due to its limitation, improvisation became essential as nursing students strived to find solutions to the absence of ideal conditions. Dewart and Corcoran et al. (2020) highlighted the role of teachers in this scenario. As students state their concerns and problems during their virtual learning system, the teachers and educators must think of ways to help them sustain and survive in their program amidst the crisis.

In summary, under the theme, improvisation has become a great opportunity for participants to adapt and promote resilience which they utilized during their demonstrations. It also implies nursing students enhance their adaptability. Through thorough preparation before a skill demonstration, they could build up their confidence, which manifested in successful return demonstrations. However, despite the creative ways, the students expressed how they found it hard to improvise and set up the rooms, which still affected their ability to perform certain skills properly.

**Theme 2: Unavailable Support for Assistance**

Support refers to assistance the family members provide to facilitate the successful return demonstration. It involves practical assistance. The students expressed and mentioned the absence of someone to assist them in recording videos or setting up demonstrations, and this led them to find solutions on their own, such as using phone stands or taping the phone on walls, or using appliances such as electric fans.

In summary, students encountered difficulties because there was no dedicated support for recording; however, this emphasizes the value of having a family member who can help the students during their virtual skills demonstration. Students also showed adaptability by improvising and coming up with different solutions.

**Theme 3: Satisfaction with Virtual Learning**

The virtual learning mode became the widely-used solution to the learning crisis during the pandemic. In nursing, it allowed student nurses to perform and demonstrate different tasks. However, individuals' satisfaction with this mode of learning varies and depends on various factors, leading to frustration and low satisfaction with virtual learning. Despite the learning materials provided in online learning, it still does not allow the students to learn the interaction and the hands-on skills required for the nurse. Even though the videos were helpful, many participants felt unprepared and uneasy about utilizing them on patients when they were eventually allowed to continue their clinical practice because there were no in-person practice sessions (Hu et al., 2022).

In summary, nursing students prefer face-to-face learning and claim to learn better through experience. A proper learning environment is crucial in creating a quality learning experience. Such an environment should support effective learning and meaningful interaction.

**Theme 4: Retention of Skills and Knowledge**

One significant experience student nurses have faced during this unprecedented crisis is the retention of skills and knowledge. Due to this, students needed to adapt to new ways of learning. There were also lacking chances for practice and application, group activities, and a real setting where they could apply what they learned. The absence of these elements affected the ability of nursing students to retain skills.

In summary, the theme revealed that during the COVID-19 pandemic, nursing students found basic skills easier to retain than complex nursing skills due to limited equipment, reduced hands-on practice opportunities, and the need of the student for feedback and guidance from clinical instructors.

**Theme 5: Confidence, Pressure, and Anxiety in Performing Skills in Actual Hospital Setting**

Virtual mode of skills learning for nursing students developed self-doubt and lack of confidence when it came to performing skills, most importantly in a hospital setting. In a related study, Liesveld (2022) discovered that many students were worried about missing out on opportunities to practice the hands-on skills necessary for nursing. As a result, several students worry about their skills, confidence, and ability to prepare for graduation and practice appropriately. They are concerned about their lack of skill development due to missing out on hands-on clinical practice when the clinical format changed to an online learning technique.

In summary, the themes disclosed that although virtual skills demonstrations had some benefits, such as acquiring basic knowledge and skills, there were still significant limitations and challenges. The lack of hands-on experience, inadequate materials, and difficulty transferring skills to real-world settings affected students' satisfaction, confidence, and performance. The missed opportunities and experiences are significant to the students as they affect their confidence to perform their clinical duties.

## CONCLUSIONS

The study aimed to explore the nursing students' virtual skills demonstration experience during the COVID-19 pandemic. Based on the results and discussions, the following conclusions were made.

This study shows that the COVID-19 pandemic drastically affected nursing students in terms of the learning environment. Challenges were raised as nursing students adapted to the virtual learning format. They expressed concerns about being distracted by noise and their surroundings, space constraints, lack of interaction and guidance, lack of hands-on experiences due to the need for improvisation of materials, and even concerns about internet connectivity which negatively affected their focus and concentration. Nonetheless, some nursing students still appreciated the virtual learning experience. Despite the limitation of the new learning format, learners had a personal space with the same ease as during the traditional way of learning.

Financial problems such as load expenses, medical equipment expenses, and school fees fully affected the nursing students' ability to participate in virtual skills demonstrations. However, the study revealed that due to the COVID-19 pandemic, nursing students became creative and resourceful in finding alternatives to supply the mind to fulfill the purpose of demonstrations. Moreover, nursing students were grateful for the support of their family, siblings, and other relatives in overcoming these financial challenges and burdens.

Respondents also showed mixed perceptions of the skills and knowledge acquisition during the Covid-19 pandemic. Not being able to fully appreciate the skills, distractions, use of imagination, lack of realism and experience, and varied teaching impact were some learning challenges in virtual skills demonstration. Despite the strengths and limitations of virtual skills demonstration in promoting skills and knowledge acquisition, the sudden shift of learning caused by the pandemic has been challenging for nursing students. The respondents reflected on the importance of guided practice, immediate feedback, and support from clinical instructors to their demonstration, which will enhance their skills acquisition.

Similarly, experience with virtual skills demonstration set-up became a challenge, most specifically because of limited space. Nonetheless, the nursing students found ways to adjust their set-up, acknowledging the importance of allocating sufficient time to prepare their demonstration environments and developing adaptability by finding, making, and improvising alternative solutions. Even though some students stated interrups or distractions from family members, still, others supported and helped these nursing students in their skills demonstrations. The pandemic forced students and institutions to

adapt to new learning for skills demonstration. The virtual skills demonstration of nursing students bore some benefits, such as acquiring basic knowledge and skills despite limitations and challenges, including lack of hands-on experience, inadequate materials, and difficulty transferring skills to real-world settings, which affected the students' satisfaction, confidence, and performance.

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