Virtual Nursing Education: A New Territory

Irish Patrick Williams, PhD., RN, MSN, CRRN, CFN
Hinds Community College
iwilliams@hindscc.edu

Alfonzo R. Haralson, Ed.D, LPC, LMFT
Jackson State University
Alfonzo.haralson@jsums.edu

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Irish Patrick Williams *and* **Alfonzo R. Haralson**

Abstract

The COVID-19 pandemic led to an unexpected and sudden shift from face to face to virtual learning. Nursing students nor educators were prepared. This study evaluates the preparedness and adjustments made to accommodate education. The study further assesses the students' adaptability and access to adequate technology. The finding of this study will add to the knowledge needed to navigate a new and challenging educational arena.

Keywords: Virtual, Education, COVID-19, Nursing.

Introduction

The Coronavirus disease (COVID- 2019) outbreak rapidly changed the face of academia. From kindergartens to universities, COVID-19 caused school closures and a transition to e-learning. These changes have had profound consequences on nursing education. Nursing education has had to shift from a traditional hands-on face to face delivery to virtual and simulation delivery. Nurse educators were forced to learn how to navigate and deliver the course content online. The pandemic also forced nurse educators to assess how politics and economics disproportionally impacted the underrepresented and socially depressed population. These were people that were at an increased risk of contracting the virus due to work exposure, traveling public transportation and the inability to work from home. Some nursing students also were a part of this population therefore, nurse educators need to teach students to not only provide holistic care but to have an online program that addressed the holistic needs of the students.

Uprichard (2020) defines e-learning or the virtual learning environment as delivering training using technology such as the internet, social media, and mobile applications. Synchronous learning is facilitated by a teacher, usually scheduled, and takes place in real time while asynchronous learning is more flexible, as it can be completed at any time. While teleteaching might not be considered the best learning solution it has proven to be the only solution. However, e-learning or teleteaching presents challenges such as technical difficulties, lack of technical support, poor and outdated computer systems and connectivity issues, and e-learning technological illiteracy.

Students' families and guardians were forced to provide the needed technology and internet services required to access the online classes. (Agu et al. 2021). The online platform, although a must, has caused many inequalities for some students. Students are experiencing a wide range of challenges in the rapid transition to online learning, with almost all these challenges being more prevalent for students with disabilities. Achieving educational equity for students with disabilities has long been a goal, but the pandemic has highlighted how advances toward equity are lost during a crisis. Students that rely on campus-based health services might have found services abruptly closed or transitioned to virtual services or challenges accessing and receiving accommodations. Difficulties for all students included insufficient equipment, poor Wi-Fi accessibility, lack of

technological support, problems accessing online examinations, and difficulty accessing online libraries. Communicating with nurse educators and peers has also proven to be a challenge. (Chugani and Hontrow, 2020).

e-learning presents special challenges for training healthcare professionals. Hodeges et al. (2020), determined that effective online learning results from careful instructional design and planning using a systematic model for design and development. Colleges and universities should work to achieve greater adherence to communicating effectively, surveillance for problems, ongoing student progress and providing easily accessible technical support.

Review of Literature

The ongoing COVID-19 pandemic has rapidly disrupted traditional modes of operation in healthcare education. Mukhopadhyay et al. (2020) created a resource for healthcare education recommending various technological methods. These resources included video conferencing platforms such as zoom and google meet, Web sites, Microsoft Teams, YouTube, free online educational resources, and social media.

Universities closed, and clinical rotation suspended in March 2020 due to COVID. Educators faced an immediate need to adapt teaching methods. Dhonncha and Murphy (2021) reported adopting the platform Microsoft Teams to deliver online teaching, video lectures, real-time discussion and document sharing. Teaching sessions included didactic lectures, interactive tutorials, and student-led case studies and topic presentations. While videoed demonstrations of medical procedures were shared via of Canvas. While virtual cannot replace hands on clinical expertise, COVID-19 has forced educators to become innovated with their mode of delivery? Testing and video demonstrations and instructions were accomplished using Canvas a learning management platform or exam software such as Examsoft.

Ozdemir and Sonmez (2020) conducted a study to determine the relationship between nursing students' levels of technology addiction and their attitudes towards

e-learning during the COVID-19 pandemic. The study sample consisted of 434 nursing students in Turkey. It was found that the nursing students had a low level of technology addiction and mildly positive attitudes toward e-learning. As a result of the study, it was recommended that educators and institutions provide education to their students about the appropriate use of information and communication technologies and online education. To be more useful to the students, educators should receive training about online learning platforms and institutions should make efforts to develop and strengthens online course platforms.

Agu et al. (2021) conducted a study to determine the effect of COVID-19 on nursing education in developing countries. It was determined that response to the pandemic was determined by financial, political, technology infrastructure of the county and the internet accessibility between rural and urban. The researchers further reported that the pandemic forced the use of high-fidelity simulation in teaching clinical skills which otherwise would not have occurred. Agu et al. (2021) concluded that if adequate measures are put in place regarding disaster preparedness and preplanned mitigation strategies, future crisis will have less impact on nursing education.

Celik (2020) conducted a study of 270 nursing students to investigate the effects of staying home due to the COVID 19. Celik (2020) felt that staying home impacted life satisfaction and social competencies. The study found that COVID-19 disrupted and affected a safe environment and

indirectly affected life satisfaction leading to negative emotions, grief, and sadness. Social competence was also negatively affected.

Elliott and Muirhead (2020) further reported that there is a disillusionment that because of online learning there is an improved life work balance. However, just the opposite has occurred with the elimination of commutes being replaced with remote workspaces which blurred loss of boundaries with meetings, and classes lingering into the late evening or early morning.

Elliott and Muirhead (2020) reported that the learning environment can be challenging if students live in close quarters with multiple family members, parenting young children that are also learning remotely. Residing in a rural area where internet connections are unreliable also presents special challenges. Those that lived along reported feelings of isolation and loneliness. Although virtual learning offers an innovative delivery that is accessible anytime and anywhere, nurse educators must be thoughtful and consider ways to engage students since they lack the ability to read the room for comprehension. Elliott and Muirhead (2020) feel that nurse educators need to work together to sustain and survive.

Fowler and Wholeben (2020) reported that acute detrimental childhood events such as exposure to child abuse, family violence, sexual trauma or alcoholism in childhood is associated with poor decision making and impact cognitive processes. High stress events such as COVID-19 can be a trigger for re-traumatization. COVID-19 pandemic stressors include sheltering at home, closing business, social distancing, self-quarantine, and disruption in school. The uncertainty and fear produced anxiety for most. For nursing students who are survivors of acute childhood experiences, the ability to cope with the stress of the pandemic may be compromised. The COVID-19 pandemic altered the educational course for the student nurse. Many students were included in the front-line healthcare workers who witnessed the impact of the pandemic. Others had their clinical experiences blocked and had limited experiences. In both cases, anxiety, uncertainty, and concern for their individual and family health and future prosperity produced a state of increased anxiety and stress. The potential impact on the nursing student who has already suffered an acute childhood event can be a hesitance to continue their education, cause exaggerated feelings of hopelessness, and increase feeling of total loss of control, thus influencing the student's confidence and performance.

Purpose of the Study

Effective online learning results from careful instructional design and planning by, using a systematic model for design and development. The pandemic caused and emergency shift to online learning. Emergency remote teaching is a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances. Therefore, the goal of this study is to investigate the effectiveness and obstacles associated with the remote educational delivery to nursing students.

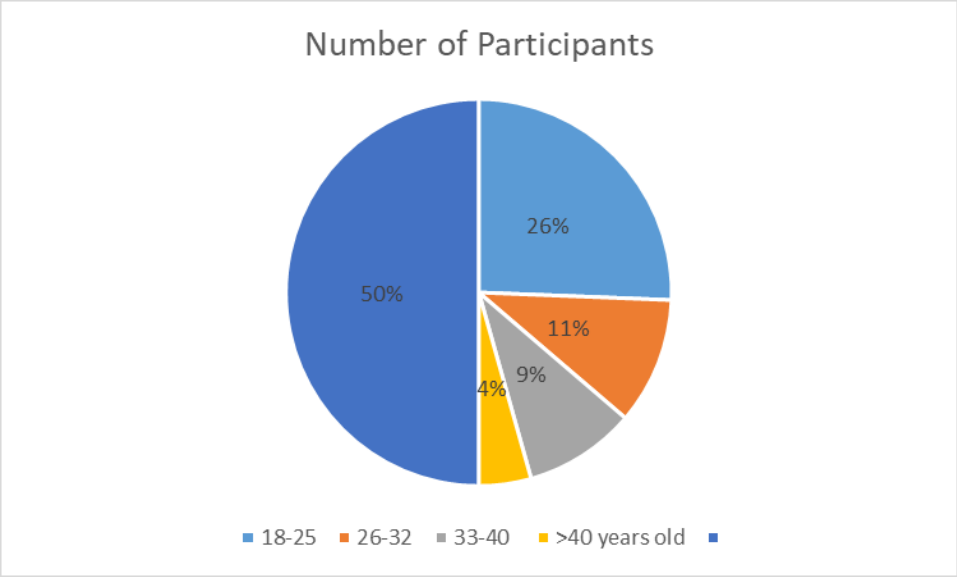
Research Methodology

Prior to the collection of data, permission was received from the community college institutional review board (IRB). This research did not receive any type of funding from public, commercial, or not-for-profit agencies. The participants were associate degree nursing students enrolled at a community college located in central Mississippi. Data was collected utilizing a researcher developed survey questionnaire which gathered geographical and statistical data. Content validity of the survey questionnaire was established by a panel of three nurse educators not associated with

the study and who were considered knowledgeable in the research topic. Participation was strictly voluntary with no repercussions due to participation or lack of and posing no risk to the participants. The participants were allowed to access the survey questionnaire via an online link which was emailed and posted on the student nurse organization Canvas page. The survey questionnaire did not allow identifying marks to be placed on the survey questionnaire to promote anonymity. The completed questionnaires were processed using Microsoft office 365.

Results

The potential participation population was (n=282) associated nursing students. The sample pool consisted of (n=80) students with a response rate of 28.4%. The age group participating varied with the larger participating group being within the age range 18 years of age to 25 years of age and the smaller group being older than 40 years of age.



When asked if difficulty was met accessing virtual education during COVID, (n=18) students reported yes while (n=42) students denied difficulty. When asked if home distractions presented a problem, (n=38) students replied yes, (n=24) replied no and with (n=18) being neutral. The students were asked if they had a private quiet personal space for study, the majority, (n=43) students replied yes, (n=20) students replied no while (n=17) were not impacted. The students were asked if they had to search for a quiet place to study, (n=29) students replied yes, while (n=29) responded no with the (n=42) students were neutral. When asked if they had consistent online connectivity, (n=48) students reported good connectivity while (n=17) students reported problems with connectivity while (n=15) was neutral. The students were asked if they felt their electronic device was sufficient for virtual class. Fifty-nine (n=59) students felt that their devices were sufficient while, (n=5) reported problems. The students were further asked whether assignment instructions and feedback were more difficult to understand due to virtual delivery. The majority (n=35) reported having difficulty while (n=18) denies having difficulty.

Limitation of Study

The sample pool was limited to one nursing program located in central Mississippi and provided a small sample size of only (n=80) students. A larger study involving other nursing programs in different geographical locations are recommended. This would allow for a comparison study. A comparison sample would provide a larger pool of research participants and allow an opportunity to assess various cultures, ethnicities, generations, and the impact of virtual learning on the educational process. It would also give needed information for areas of improvements.

Conclusion

Although the sample size was small, a common theme was noted. Digital inequity was found either related to insufficient equipment or inconsistent connectivity. Inadequate communication and collaboration among the student and the teacher and the inability for a smooth transition from face to face to an online presentation was also found. The future goal is to promote an effective, efficient adaptation to online presentation, thorough communication and to promote long- term online digitalization of pedagogy until the eradication of COVID.

Recommendations

The Coronavirus disease (COVID-2019) pandemic is a public policy issues that has impacted education. The pandemic has made public officials and government aware that much work is needed in the area or broadband access especially in rural areas. Colleges and universities need technical support staff which is available to not only assist students but to help faculty. Many times, teaching faculty is pulled away to assist with technical issues in which they are not equipped to handle. This presents for a stressful situation for both the student and teaching faculty. Faculty needs to be taught innovative delivery styles and various instructional designs. In addition, connectivity ability and the student's e-learning devices should be evaluated for recommended requirements during the enrollment process prior to starting virtual learning. Connectivity issues should be addressed early on regardless, of the COVID spread. Being prepared will allow colleges and universities to shift teaching strategies as needed as the pandemic unfolds.

About the Authors:

Irish Patrick Williams, PhD, RN, MSN, CRRN, CFN is teaching faculty at Hinds Community College Associate Degree Nursing Program. She has been a nurse educator for 22 years with experience across all levels including Transition to RN.
iwilliams@hindscc.edu

Alfonzo R. Haralson, Ed.D, LPC, LMFT is an associate professor at Jackson State University Department of Counseling, Rehabilitation and Psychometric Services College of Education and Human Development. He has been an educator for 32 years.
Alfonzo.haralson@jsums.edu

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