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From Face-to-Face to Online Mode: Nursing Students' Learning Experiences during COVID-19 Pandemic

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Abstract

The repeated episodes of global pandemic created by COVID-19 has led several universities and institutes switching their mode of education from traditional face-to-face to online mode using different platforms such as Zoom, Google Meet, etc. to mitigate the impact on learning. Nursing education system has been affected such as student's learning, gap in admissions and delay in graduation which could in turn lead to nursing shortage in near future. The consequences, challenges and barriers faced by students must be explored and addressed so as to improve the quality of online system of nursing education in order to yield smooth production of nursing graduates. This narrative inquiry explores the stories of two nursing student's experiences who were adapting online mode of education during COVID-19 pandemic. The findings of the study explored as feeling of uncertainty, COVID-19 prompted new learning, modes of teaching and learning and barriers to online learning such as technological competencies, lack of interaction, the Internet issues. The study highlighted that there is a need of social interactions between students and teachers and among students for an active learning process. In addition, practical courses remain the major concern in nursing and it can lead to anxiety and delay graduation among nursing students. So, concerned authority must be alerted for adopting alternative mode of clinical education as well.

Keywords: Nursing education, active learning, narrative inquiry, online learning, lockdown

Introduction

Nepal announced lockdown in response to a unique virus 'COVID-19' which rapidly spread to the most part of the world (World Health Organization, 2021). This disrupted the world's education, economy, healthcare and communication. As a result, all schools and colleges remained closed to break the chain of infection. This decision affected education system in several ways such as interruption in learning, assessment and delay in admission

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of new session etc. However, several universities and institutes switched their mode of education from traditional face-face mode to online mode using different platforms such as zoom, Google meet etc. to mitigate the impact on learning.

Recent multiple waves of COVID-19 pandemic have been observed in several countries worldwide (Pun, 2021). It has collapsed education systems including nursing education (International council for nurses (ICN, 2021). Participating in face-face classes and clinical rotations for students has been a threat due to the risk of virus transmission and measures of social distancing. Alike other discipline, nursing colleges also adopted alternative mode of education, online learning. Online learning are used interchangeably with e-learning, web-based learning, computer-assisted instruction, Internet-based learning or distributed learning (Ruiz et. al., 2006). Teaching and learning in e-learning takes place remotely and on digital platforms. However, equitable access to e-learning is the major concern in developing country like Nepal (Dawadi et al., 2020).

Delivering nursing education through online mode is not a new concern in an international context. It was practiced in the name of e-learning/distance education in several universities worldwide especially in developed countries where students had problems due to lack of economic, political and physical facilities, and instructors (Koklol et al., 2006, Senyuva, 2011). Yangoz (2017) conducted a review study which suggested that variety of learning experiences such as texts, graphics, animations, role play and videos enhances effective learning in nursing education.

In Nepal, the COVID-19 has impacted the enrollment of new students/graduates in Nursing. There has been one year gap since the universities that offers nursing education could not enroll new students which could impact the supply and development of the nursing workforce. In addition, those who are enrolled are worried for delays in graduation (ICN, 2021). This could affect nation in terms of nursing shortage in near future. Moreover, the projection of multiple waves of COVID-19 virus outbreak and unavailability of vaccination for regular populations denotes that the schools and universities remain close for next few months to years. So, the consequences, challenges and barriers faced by students must be explored and addressed so as to improve the quality of online system of nursing education in order to yield smooth production of nursing graduates.

There are number of quantitative studies conducted in national and international context during and after COVID-19 on perception, effectiveness, satisfaction, challenges and barriers of online teaching and learning in national and international context. Some of them focused on teacher's perspective and others focused on learner's perspective. For instance, a survey study conducted in china among medical and nursing students found that majority of students were dissatisfied whereas teachers were satisfied with online learning (Li et al., 2021). The finding matches with another cross sectional study conducted among same group of students in UAE where more than 65% students were not satisfied with online learning during COVID-19 crisis (Elshami et al., 2021). In addition, a survey study conducted in Nepalese context among nursing students also found that more than half respondent had

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negative perception towards online classes (Koirala et al., 2020). On contrary, another two studies conducted in Nepal among nursing and medical students found that majority of students had positive perception and fully satisfied with/towards online learning (Rana et al., 2021; Sharma et al., 2020). To clear up the controversial findings such as some study concluded that nursing students had negative perception whereas others found positive perception towards online classes and online learning during COVID-19 pandemic, there is a need of in depth study by using interpretative paradigm. In this connection, the main purpose of this narrative study is to explore the stories of nursing students who are adapting online mode of education during COVID-19 pandemic. This study provided valuable information to the teachers in order to re-envision their existing teaching practice and curriculum developer to revise curriculum in a society facing isolation and social distancing, as well as quarantine measures.

Theoretical Framework

Adult Learning Theory of Andragogy

Nursing students are adult learners. Andragogy is one important element in online learning (Chametzky, 2014). Malcolm Knowles (1978) introduced the concept of andragogy in the early 1970s. Knowles (1989) believes adult learners usually need to know why they are learning, have their previous educational experience, be self-directed in their learning, see the learning as a means to solve a problem, be ready to learn and view the topic as relevant, and be intrinsically motivated to engage in learning.

According to Knowles (1989), the first assumption of adult learning is learners need a reason for learning something. The first task of the facilitator is to explain and help the learners about “why they need to learn something before undertaking to learn it” (p.83). This increases the chance that the adult learner will be motivated to attempt the task. Secondly, adults are self-directed on their own lives. They are responsible for their decisions of their own lives. Online learner’s self-concept plays a key role for success, and those who have an internal locus of control tend to be more successful in the online learning environment. Facilitators are encouraged required to address the learner’s self-concept in a class in order to enable learners to discuss their experiences with their classmates by establishing group projects and providing opportunities for interactive discussions (Cochran & Brown, 2016). The third assumption talks about the role of learner’s experience. Adult learners come to an educational activity with variety of experiences from their youths. The course content “must be structured in a way that fosters sharing of experiences among learners such as through the use of group projects and interactive discussions” (Blondy, 2007, p.121 as cited in Cochran & Brown, 2016). A useful activity that shares past experiences enriches the learning environment.

Fourthly, andragogy talks about is the adult learners’ readiness to learn. It emphasizes the importance of timing of learning experiences to match with the developmental task of the learners. Here the facilitator need to understand the learners’ readiness to learn the course

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content and that allows the students to get a better understanding of what they are about to learn. The fifth assumption of andragogy is the learner's orientation to learning. Adults are task centered in their orientation to learning. The facilitators can use task-based activities to help learners understand on how to apply knowledge to their practice and lives.

The last assumption is that adult learners are intrinsically motivated to learn. Students' intrinsic motivation to learn can be supported by providing a learning environment that actively participates and engages the students. In order to create a positive learning environment for adult learners in an online environment, facilitators must address the need of learners to be appreciated, valued, and respected. In an online learning environment using multimedia such as games, art based pedagogy when appropriate may enhance students' motivation to learn.

The above theory/model when applied to this study provided a framework on how nursing students are experiencing their online learning. The study brings students stories regarding nursing students online learning experiences based on the assumptions of adult learning theory.

Methods and Procedures

This research is a narrative inquiry research design which is "is a way of characterizing the phenomena of human experience" (Connelly & Clandinin, 1990, p. 2). In addition, narrative inquiry, explores the experience of an individual and how their physical, cultural and social environment impacts and shapes their individual experiences (Haydon et al, 2017). In this study, the researcher tries to explore the experiences of nursing students who faced a sudden transition in the mode of learning: From face-face to online learning during COVID-19 pandemic in Nepal. Online learning is an entirely new context for nursing students in Nepal in the face of multiple waves of COVID-19 pandemic. In addition, the quantitative studies provided inconclusive results. So, the researcher wanted to identify and characterize nursing student's experiences in situated in time, context, and personal and social experiences i.e. "Temporality, Sociality and Place" which specify dimensions of an inquiry space (Connelly & Clandinin, 2006, p. 479)

Participants

As the researcher is personally involved in teaching bachelor level nursing, I choose my own students as participants in this study. Narrative inquiry uses few (one to six) participants and requires in depth interactions among the researcher (Haydon et al., 2017). I have purposively chosen two students; the third year Post basic bachelor (PBN) students. The selection was based on the students who underwent online classes in both first and second waves of COVID-19 pandemic and who was expressive in nature where they could explore their stories during COVID-19 learning experiences. The participants were nursing students from third year students of Post Basic Nursing in ABC nursing institute, province one, Nepal.

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The participants have been pseudo-named Jia and Ria. Jia (27 years) was my first participant. I have known her since 8 month after I joined the Institute as a lecturer on December, 2020. She has six years of clinical experience before joining bachelor studies. She told that she has never experienced online classes before the COVID pandemic.

Ria is 28 years old and my second participant. I have known her since 8 month after I joined the Institute as a lecturer on December, 2020. She has been working in a Neuro ICU at hospital in province one as a senior staff nurse for 6 years. After COVID-19 outbreak, she has been working at COVID ward. She is one among many working students in her class.

Instrumentation, Methods and Settings

At first an interview guide was developed using open-ended questions; for example: "How did you experience the transition from traditional to online education?" and "Have the changes affected your commitment to your studies?" Follow up questions were asked, such as "What has it meant for you?", "what learning experiences are used to teach in online classes by the teachers?". These questions aimed to elicit deeper narratives where the students reflected on educational aspects and what the pedagogical transition had meant for them.

Secondly, the two sessions of interviews (1 hour each) were conducted for each participant via Zoom meeting application. On which the first interview collected all the stories from the participants based on interview guide and the second interview allowed for clarification and follow-up questions. Individual students was contacted and scheduled for interview based on their convenience time. For recording the interview, the recording option was enabled in the zoom application with the permission of the participant. In addition, the researcher took notes during the interviews to capture keywords and non-verbal expressions.

Data Interpretation and Analysis

At first, the participants were given pseudonym (Jia and Ria). After that, the data in the form of audio were transcribed and stored as Microsoft Word documents, and I compiled all interviews into a single Microsoft Word document and noted emergent ideas. I prepared vignettes of each student. To analyze and interpret the data, I transcribed the data and then I created the vignette of each student separately. From the vignette, I determined codes, and then I formed categories as themes (Saldana, 2013). From the four themes identified in the data, I began connecting participant stories to various experiences regarding online learning during COVID-19. Finally, I interpreted and discussed data based on the theoretical framework of the study.

Ethical Considerations

At first the participants were informed about the objective of the study and they were ensured regarding anonymity by giving a pseudonym. After that, verbal consent was taken from them and the interview was conducted. All files pertaining to that participant was named using the pseudonym.

Results and Discussion

Four themes were identified by topics that both participants commonly raised. The experience that nursing students faced during online learning are emotional reaction: feeling of uncertainty, COVID-19 prompted new learning, modes of teaching and learning and barriers to online learning such as technological competencies, lack of interaction, internet issues and electricity issues.

Emotional Reaction: Feeling of Uncertainty

Jia and Ria both mentioned that after the lockdown they felt some sense of uncertainty. The uncertainty is about their studies regarding how to complete their course and delay graduation. Jia mentioned that “We had just started our 2nd year classes and the rumors regarding lockdown... and closure of schools and colleges led us to think about what might be the alternative regarding the classes and studies.” And Ria had also a similar concern: “I began to think that, if the situation continue to go like this, how will we complete the course and what about our degree, time investment and money investment. ... We were just at the second year and we had 2 more years to complete the bachelor degree.”

In addition, Jia also mentioned about her uncertainty emotion regarding practical course. She told that “In the second year, we had to do almost three months of practice in hospital setting but due to COVID restriction we were not allowed to practice in hospital. Our course is incomplete without practical/hospital placement. So, no matter how hard we try to complete the course, practical part remained incomplete. Later, we did practical course after final exam of the theory course.”

Jia further added regarding her concern of delay graduation: “Our course will end at the end of this year 2078 but our practical posting will remain uncertain because still COVID cases are increasing and lockdown has not been opened completely and we cannot get course completed without practical exposure and exams and we will surely have delay graduation.”

The important issue brought about by transition of teaching and learning mode from face-face to online platform has lead suspension of clinical teaching which resulted extension in the length of the program (Agu et al., 2021). Several studies have recommended alternative modes of clinical rotations for nursing and medical students in order to complete the course in estimated time such as using e-learning, group discussions, case analysis, clinical skill practice, and clinical case simulation scenario exercises (Liu et al., 2020; Wong et al., 2021). However, the medical and nursing colleges in many developing countries like Nepal were not prepared for the sophisticated laboratories for online clinical platforms. So, many nursing schools do not currently have all the necessary resources (in terms of trained teachers and laboratories) and infrastructures for online simulation (Agu et al., 2021).

A report published by International council for nurses (2021) mentioned that 46% of countries experienced delays or cancellations to nursing students' clinical placements and 57% of countries report delays in student graduation. Nursing students expressed concerns and anxiety about delays in completing their nursing programmes. This has led to potentially

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affect the quality of nursing education and place increased stress on students and clinical area. This also affected in graduation among nursing students. In addition, another study conducted by Li et al., (2021) found that the absence of experimental/practical classes during COVID-19 was considered as an important inhibiting factor for online learning.

COVID-19 Prompted New Learning

The pedagogical transition to online learning required students to take more responsibility to understand and illuminate the course content and requirements. It also required an increased capability among students to direct the course content and information that was taught and communicated via the online learning platform. So, both students reported an increased level of responsibility for their own learning.

Jia and Ria both mentioned that COVID-19 gave them opportunity to learn something new regarding the technology and their course study. Jia told that due to she had missed many classes, she worked hard to cover all those missed lesson. She self-studied most of the courses with the help of YouTube, Google sites and so on and this was new experience for her.

Ria also talked about the new learning opportunity regarding zoom app: "In the beginning, it was so new for me to use Zoom app for classes. But, after using it for several classes, it was so comfortable and convenient to use. I am a fast learner so I took me no time to learn how to join and participate in class via zoom app".

Furthermore, COVID-19 made both participants an independent learner. As their teachers left many chapters for self-studies and they missed many classes due to several reasons, they had to learn by themselves. Jia mentioned that "Online learning gave me many more opportunities to learn independently....I explored many learning sites which I had not accessed before. During face to face classes, majority of knowledge gained by me relied on teachers and book. But, now, I think I can discover new things with the help of various learning sites." Furthermore, Ria had had times during exams and she had to learn by herself regarding the chapter that she missed the classes.

During analysis, I noticed the elements of "adult learning theory" and "self-determined learning theory (Heutagogy)" among the participants. Adult learning theory (Knowles, 1989) mentions that adult learners usually need to know why they are learning, have their previous educational experience, be self-directed in their learning, see the learning as a means to solve a problem, be ready to learn and view the topic as relevant, and be intrinsically motivated to engage in learning.

In this study, COVID-19 has changed the way students learn such as they became an independent learner. The process of online learning empowered students to be accountable for their own study. In the face to face class, students were more dependent with the teachers and library books. During online class, students miss so many classes due to various reasons such as internet issues, electricity issues and technical issues. So, students are forced to learn the missed content independently to pass the exam. In addition, teachers left many

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units for self-study, so students explored many sites in the internet to search the content of their course. They became more active in their learning due to online learning. In addition, learners were self-directed to continue to learn on their own and they can personalize their learning paths in the way they desire. Students explored new learning sites such as Google, YouTube and other learning sites to understand the content of the course.

Sit et al. (2004) found that online learning enabled students to hold a higher level of accountability for their own learning and to learn independently and the barriers for online learning was inadequate human interaction. Current study also revealed that online learning during COVID-019 prompted independent learning habits among students.

Modes of Teaching and Learning

Both participant Jia and Ria mentioned that majority of teachers used lecture method for teaching in online class. Teachers barely involved students in discussions. They came to the zoom link class, take attendance and deliver the content via lecture and PowerPoint slides. Ria mentioned that “Only one teacher participated students in discussion and make class more interactive.”

This study identified two forms of learning activities during the online teaching and learning period. The first form was electronic live lectures, which were delivered using Zoom software and included slide shows by the teacher. The second form of learning activity was self-study using the course literature and textbooks without direct participation of the teacher. The first form supports ‘banking model’ as explained by Frere in his book “Pedagogy of oppressed” (Frere, 1970, pp-73). This concept views students as “container” or “receptacles” that is to be “filled” by teachers. The banking metaphor used by Frère denotes teacher as a depositor of knowledge and student as a recipient or collector of knowledge deposited by the teacher which they patiently listen/receive, memorize/recall and repeat/reproduce.

On the other hand, second form of learning supports the self-directed learning (Andragogy) and self-determined learning (Heutagogy). The goals of self-directed learning is helping learners develop the capacity to be self-directed in learning, supporting transformational learning, and promoting “emancipatory learning and social action” (Merriam, 2001, p. 9). Here, the facilitator/teacher supports students to develop capacity for self-directed in his or her learning (Blaschke, 2012).

This finding is inconsistent with the study conducted in India by Mishre et al. (2020) where teacher adopted variety of learning experiences to teach classes to make it more interactive through online mode such as YouTube link, Google classroom, conducted webinar and discussion sessions and so on. This may be due to teacher’s high competencies to use various learning experiences in their context.

Barriers to Online Learning

Several barriers to online learning were identified from the narratives of Jia and Ria. They are technological competencies, lack of interaction, internet issues and electricity issues.

From Face-to-Face to Online Mode: Nursing Students' Learning Experiences during COVID-19 Pandemic Technological Competencies

Technological competencies regarding the teachers were found as a barrier in online learning. Both participant Jia and Ria mentioned about the technological in competencies of some of their teachers. Jia told that “Some, teachers in our college were not competent in using technology and thus Zoom app.... So, sometime we had to wait for long time to join the class due to technical issues”. In addition, Ria also told that “Some of our teachers are older than others, so they took so much time to start the class and there were technical issues so many times in their classes”.

Technological Competence was one of the top seven competencies for effective online learning. It is considered as a critical aspect of online course instructor preparation (Bigatel et al., 2012). The educator/ instructors needs adequate preparation with the technological learning system and have the confidence with the use of these technologies. However, this study revealed teacher's technology competencies as one the barriers for effective online teaching. This may be due to sudden transition of teaching mode from face-face learning to online learning and lack of preparation time for teachers to operate online classes. In Nepal, teachers are not used to with the use of online learning platform. So, they need training on how to effectively conduct online classes and perform online assessments without technological difficulties as well as various ways to involve students in discussions, interactions and active participation.

The finding is consistent with the study conducted by Elashmi et al. (2021) which revealed that more than 85 % of the faculty's experienced technical difficulties while online teaching and learning.

Lack of Interaction

Both participant Jia and Ria mentioned that their online class was less interactive than face-face class. Due to internet issues such as high data usage most of them in the class did not opened camera which hindered for interaction in the online class. In addition, Ria mentioned that “During face-face classes, we had so many discussions in the class, but in online class we don't usually put our camera on and our teachers generally enters into the zoom class and teaches for 40 minutes and had few conversations.... In addition, I think that there are lots of distractions as I do not open my cameras because of high data usage”. Jia also mentioned that teachers would not participate them in discussions in online class as they did in face-face class. They came to the zoom link class, take attendance and deliver the content via lecture and PowerPoint slides.

Bigatel et al. (2012) highlighted three conditions for effective online learning. They are faculty must be socially present in the learning environment; students must form a learning community, and students must be actively engaged in learning activities.

The study also highlighted the importance of social interactions between students and teachers and among students as an important part of the students' learning process. Based on the context in which the learning occurs, the learner may have actual level of development

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or potential level of development. The actual level of development refers to andragogy and heutagogy where a learner constructs their own knowledge based on their own capacity and experience. On the other hand, the potential level of development refers to the learning occurred through interactions with other individuals who have comparatively more knowledge and experience. Thus, there is a need to have social interaction for potential level of development between teachers and students and among students as well. The activities that supports social interaction in an online learning environment are group assignments, group discussions and group presentations (Langegård et al., 2021). However, this study found limited use of social interactions for knowledge construction process.

The finding was supported by with the quantitative study conducted by Koirala et al. (2020). They found that collaboration and interaction in online class remain the major barriers. In addition, Sit et al. (2004) and Elshami et al. (2021), also found that a major hindrance to online learning was lack of opportunity for human interaction.

Internet and Electricity Issues

Internet instability was another concern regarding the barriers of online education. Both participants mentioned that when the online class begun for the first time, they were at unusual situations. In addition, internet issue was the concern for their teachers as well because many class were cancelled due to internet issues. Jia was at her house in hilly region and Ria was in quarantine at hospital. So, in the beginning they both had internet issues. Jia mentioned that “I arranged to take classes at my aunt’s house (she had internet at her house) where I had to walk 15 minutes (off road) from my home. Every day, I went to my aunt’s home for taking online classes via Zoom”. Ria also mentioned that “I along with other hospital staffs were quarantined inside the hospital for 15 days. So, I took online classes via my mobile inside the hospital for several days. I took data for taking classes. Sometime, data didn’t worked well so I missed some of the classes”.

Regarding the teachers internet issues, Jia mentioned that someday the teachers did not take class because of some technical issues such as internet issues, electricity issues and so on. They used to cancel the class just five minutes before the time of the class.

The shift of all educational programs to online platform has created inequality in access to learning (Agu et al. 2021). Many students use their mobile phone for accessing the online learning. This device may have certain limitations such as type, capacity, battery life, internet access and low/insufficient memory of the device which has limited the access to the education through the online platform. In addition, due to lockdown constraints many students returned back to their home town located in distant geographical areas with limited or no access to internet. Moreover, the students who heavily depended upon teachers, campus library and who do not own computers, inadequate financial resources which limits the purchase of the required textbooks has limited the access to education.

A study conducted by Koirala et al. (2020) also revealed that one third of the students did not have access to stable internet and some of them did not have internet at their home.

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In addition, Rana et al. (2021) also found that 44.6% students agreed that interrupted internet connection was a barrier for online learning. Moreover, another study conducted by Sharma et al. (2020) emphasized better internet as one of the strongest predictor of student's satisfaction in online learning environment.

Conclusion

The students are facing many challenges in online learning such as technological incompetencies among teachers, internet issues and lack of participation. The social interaction between students and teachers and among students is an important part of the students' learning process. However, the positive part of online learning is that it makes students aware of their own knowledge and capabilities by making them think about their inner world. They gradually start to learn independently. In addition, the study also highlights the importance of social interactions between students and teachers and among students for active learning process. In the later period they have been adjusting to the flexible nature of online learning.

On the other hand, practical course remains the major concern in nursing and it can lead to anxiety and delay graduation among nursing students. Hospital practice is compulsory for nursing course completion; however, the restriction in hospital due to increasing cases of COVID and increasing chance for spread of the virus may lead delay in completion of the course. The solution for this problem would be case analysis, clinical skill practice, and clinical case simulation scenario exercise. These facilities must be emphasized by the concerned authority by arranging such laboratories and platforms and also providing training for the faculties.

This qualitative study focused on the stories of two students from one of the nursing college in province one. This could affect the generalizability of the study in other contexts. So, similar studies in different locations and contexts would add more perspectives to the existing body of literature.

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