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# EXPERIENCE AND PERCEPTION OF ONLINE EDUCATION AMONG NURSING FACULTIES DURING COVID-19 PANDEMIC IN NEPAL: A QUALITATIVE STUDY

***Bimala Kumari Sah[1*], Bibhav Adhikari[2], Apsara Pandey[3], Sita Karki [4], Suvekshya Silwal [5]***

*[1]Institute of Medicine, Maharajgunj Nursing Campus, TU, Kathmandu*
*[2]Research and Faculty Development Division, Little Angels' College of Management, Lalitpur*
*[3]Institute of Medicine, Maharajgunj Nursing Campus, TU, Kathmandu*
*[4]School of Nursing, Kathmandu University, Dhulikhel*
*[5]Institute of Medicine, Biratnagar Nursing Campus, TU, Morang*
**Corresponding Author: bimala.shah@mnc.tu.edu.np*

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## ABSTRACT

Corona virus disease - 2019 (COVID-19), the global pandemic, had jeopardized the educational institutes across the world during 2020 and 2021. The designing, preparedness and effectiveness of e-learning in nursing area were not clearly understood, particularly in a country like Nepal. Thus, the study aimed to explore experiences and perception of online education among nursing faculties during COVID-19 pandemic in Nepal. A Qualitative research design adopted where 15 nursing faculties from different University across the Nepal involved in online classes since 6 months were interviewed based on principles of data saturation using convenience sampling. Ethical approval was obtained from Nepal Health Research Council (NHRC). Written Informed consent was obtained from nursing faculties via email and in-depth interview was carried out. Confidentiality was maintained throughout the study by coding participants' records. For the data analysis, the thematic analysis and content analysis were done for the faculties' experiences and perception. Regarding nursing faculties' experiences and perception on online education, despite the challenges like: technological, environmental, clinical skills and evaluation methods constraints, they had positive enthusiasm like: economical and easy, technological opportunities and competency. It was concluded online

class is one of the crucial modes of teaching and learning in difficult circumstances during this pandemic of corona.

**Keywords:** COVID-19, experience, nursing faculties, online education, pandemic, perception

## INTRODUCTION

The global COVID-19 pandemic had jeopardized the academic calendars of educational institutions affecting over 90% of students learning. In Nepal as well, this pandemic had led to the closure of all educational institutions for an indefinite period. In the need of hour, Nepal's Government had decided to introduce a 'digital education system' for educational institutions including schools to continue the teaching and learning process even during the lockdown (Sansar & Bureau 2020). Due to the spreading contamination, schools were only closed in China and a few other impacted nations at the beginning of February 2020. But by the middle of March, around 75 nations had either declared or put in place the closure of their educational institutions. To slowdown the spread of the COVID-19, lockdown and closure of educational institutions were the only ways to break the chain of transmission that had affected large number of students (Muthuprasad, Aiswarya, Aditya & Jha 2021).

For measures to prevent the Covid-19 virus, over 190 countries had stopped their schools, affecting 1.57 billion children and youth, or 90% of all students worldwide. The government implemented programs to keep studying through radio and television, which was the most unusual educational experiment ever (United Nations Educational, Scientific and Cultural Organisation 2020). While the advent of Covid-19, health sectors had been more sensitized for production of competent health workers like nurses, doctors, etc. Nursing is subject of health science and involving directly with the care of an individual which requires competent nursing faculties to deliver appropriate education to produce well equipped nursing graduates. Therefore, the nursing faculties and students experiences and perceptions provide a more in-depth look into the collaboration of general education and special nursing education where the e-learning platforms. The need of nurse faculty be innovative, flexible, nimble and agile, with the pedagogical chaos created by COVID-19 emergence has brought all to think about new and creative ways of teaching and learning. Nursing

faculty must assure students that they will be provided an education that prepares them to be knowledgeable caregivers (Morin 2020).

Nursing faculties engaging in the teaching– learning process had to swiftly move from campus-based to online learning platforms. Virtual simulations present additional difficulties in situations where students were prohibited from entering the clinical setting. The importance of simulation, particularly virtual simulation, has increased until trainees can return to clinical settings (Barton, Murray & Spurlock, 2020).

## METHODS AND MATERIALS

Qualitative approach with descriptive exploratory research design was used, where experiences of nursing faculties were explored with phenomenological approach. A method of conducting qualitative research that emphasizes the shared aspects of a lived experience within a specific group" is known as a phenomenology (Fetters, Curry & Creswell, 2013). Non-probability convenience sampling technique was used for this study. The study sites were different universities, academy and institutions across the Nepal and accessed from their home/institute due to the lockdown of pandemic issue COVID-19. Nursing faculties who involved in taking online classes of bachelors and masters level of nursing students and capable of using Zoom/Viber/Messengers applications were included in the study. In-depth interview was taken among 15 nursing faculties. However, the researcher conducted in-depth interview until and unless required data was saturated. Interview guideline for in-depth interview (IDI) and video recording were used during interview. For pretesting, it was interviewed for one nursing faculty who was taking online classes and the sample was excluded from the main study.

The semi-structured interview guideline for nursing faculties was developed by the researchers themselves. Content validity was established by extensive literature review, consulting with co-authors, statistician and subject experts. For enhancing the quality of the qualitative in sense, trustworthiness of the data was maintained with experts' consultations, repeated contacts and member checking was done via online interview with two concerned participants.

In depth interview was taken to collect the data from nursing faculties via Messenger/viber/zoom applications. Interview sessions

were recorded. Prior to interview, written consent and information sheet were sent via viber/ messenger to get permission for interview and video recording. The interview was proceeded only after granted permission from participants.

Ethical clearance for the study was obtained from Nepal Health Research Council (Ref. No-499/2020.19th July 2020. Confidentiality of the participants were maintained during data collection and throughout the study by coding and all the obtained information stored safely locking by passwords.

Interview records of participants were repeatedly noted to verbatim and then themes were generated. Responses corresponding to the concerned matter were further followed by probing questions. The team members held meeting to discuss about technique of data collection via online interview to prevent from interviewers' bias. The timing of data collection was considered according to the time mutually agreed upon by the researchers and the nursing faculties. The process of data collection was simultaneous with data analysis as further meeting was held for clarification of incomplete and unclear data and for the assurance of the information with the faculties(participants). Colaizzi's (1978) method of data analysis for qualitative research was adapted for the analysis of obtained data (Wirihana, Welch, Williamson, Christensen, Bakon & Craft, 2018).

## RESULTS AND DISCUSSION

Most of the nursing faculties (10) are between the age group of 41 to 60 years, similarly most of them were from Tribhuvan University (Institute of Medicine), almost all did master's degree in nursing and holding position of Assistant Professor. Majority of the faculties are involved in both program (BNS and B.Sc. Nursing) for teaching, apart from this only one nursing faculty has experienced on teaching more than 30 years (Table 1).

No any faculties have taken any virtual class before. All faculties are interested for taking virtual class, almost all have personal and professional interest to take virtual class. But mentioned the variety of the study findings and the emerging patterns like : Positive enthusiasm, Challenges of online education, Traditionalist, Help seeker and Digital pedagogy in curriculum, it is challenging to draw clear comparisons and conclusions from the research done thus far (Table 2, 3 and 4).

**Table 1**

*Professional Characteristics of the Participants (Nursing Faculties) n=15*

| Characteristics | Frequency |
|---|---|
| Age in years | |
| 20-40 | 5 |
| 41-60 | 10 |
| Mean age 42.66 | |
| Education level | |
| MN/MSc. Nursing | 13 |
| PhD in Nursing | 2 |
| Working University | |
| Tribhuvan University | 6 |
| Kathmandu University | 2 |
| Purvanchal University | 2 |
| Bisheswor Prasad Koirala Institute of Health Sciences | 1 |
| Patan Academy of Health Science | 1 |
| National Academy of Health Science | 1 |
| Pokhara University | 1 |
| Karnali Academy of Health Science | 1 |
| Designation | |
| Associate Professor | 4 |
| Assistant Professor | 4 |
| Lecturer | 5 |
| Nursing Officer | 1 |
| Nursing Instructor | 1 |
| Working Department | |
| Women's Health Department | 5 |
| Adult health Nursing | 2 |
| Child Health Nursing | 4 |
| Psychiatric Nursing | 2 |
| Community Health Nursing | 2 |
| Teaching experience (in completed years) | |
| < 10 | 7 |
| 10-20 | 6 |
| 21-30 | 1 |
| >30 | 1 |
| Mean 13.46 | |
| Level of teaching | |
| MN/MSc. Nursing | 1 |
| BNS/BSc. Nursing | 11 |
| Both(MN/MSc. and BNS/BSc. Nursing) | 3 |

**Table 2**

*Participants' Experience and Perception of Online Education n=15*

| S.N. | Categories | Frequency |
|---|---|---|
| 1. | Saves time and money | 9 |
| 2. | Access to e-learning resources | 3 |
| 3. | Efficiency in technology | 4 |
| 4. | Easy to take class from home | 2 |
| 5. | Can take online classes on feasible time | 2 |
| 6. | Effective for higher classes | 2 |
| 7. | Students can rewatch recorded videos | 2 |
| 8. | Helps students to be engage in studies | 2 |
| 9. | Consult to national and international expertise | 4 |
| 10. | Interconnection among teachers and students | 2 |
| 11. | Electricity on and off | 15 |
| 12. | Poor interaction and control to students | 13 |
| 13. | Low band width internet | 12 |
| 14. | Academically feel lack of efficiency in home setting | 2 |
| 15. | Cannot see students facial expression as real classroom | 13 |
| 16. | Distraction from kids/ external noise disturbances at home | 7 |
| 17. | Academic work/activities can be finished in official environment | 2 |
| 18. | Talking like alone | 2 |
| 19. | Costly for mobile data | 2 |
| 20. | Lack of Privacy contents | 2 |
| 21. | Difficulties for skill related procedures | 8 |
| 22. | Lack of internet and online gadgets facilities | 9 |
| 23. | Lack of physical setup and infrastructures | 9 |
| 24. | Difficulties in remote and far areas | 2 |
| 25. | Already it becomes time to take online classes managing household chores | 2 |
| 26. | Frequently headache, dryness of eyes working on laptop and devices | 6 |
| 27. | Need for training on software for virtual simulation | 6 |
| 28. | No any assessment has been taken yet | 6 |
| 29. | Difficulties for clinical placement in this pandemic | 15 |
| 30. | In nursing profession clinical is utmost | 15 |
| 31. | Enhancement of faculty capability on online classes | 8 |
| 32. | Add online courses in curriculum | 13 |
| 33. | Training to teachers and students | 13 |
| 34. | Establishment of high bandwidth internet | 12 |
| 35. | Involvement of policy makers and concerned council for educational policy | 4 |
| 36. | Clinical posting with PPE | 2 |
| 37. | Clinical Posting after pandemic is over | 13 |
| 38. | Internet facilities to students | 15 |

**Table 3**

*Second Level of Thematic Analysis for Concepts*

| SN | Categories | Concepts |
|---|---|---|
| 1. | Saves time and money | Economical and easy |
| | Easy to take online class from home and on feasible time | |
| | Students can re-watch recorded videos | |
| | Access to e-learning resources | Technological competency |
| | Efficiency in technology | |
| | Learn many new ideas on Information technology | |
| | Effective for higher classes | Involvement in teaching learning activities |
| | Interconnection among teachers and students | |
| | Helps students to be engage in studies | |
| | Consult to national and international expertise | Access to expertise |
| 2. | Electricity on and off | Technological constraints |
| | Costly for mobile data | |
| | low band width internet | |
| | Lack of internet and online gadgets facilities | |
| | Lack of physical setup and infrastructures | Environmental challenges |
| | Because of busy in household chores it might be forgotten to take online class on time | |
| | Difficulties in remote and far areas | |
| | Poor interaction and control to students in online class | |
| | It is easy to finish academic work/activities in office rather than home. | |
| | Distraction from kids/ external noise causes disturbances at home to take online class | |
| | Difficulties to apply psychomotor skills related procedures | Clinical skills challenge |
| | Lack of Privacy in teaching learning (files) contents | Opinion on files security |
| | There is no risk on online as teaching learning (files) activities are shared | |
| | No any assessment has been taken yet | Challenge in evaluation methods |
| 3. | Assessment via zoom meeting sharing google form link are not fair for exam | |
| 4. | No fair evaluation in assessment | |
| 5. | Talking like alone | Reserved own views/ opinion (Traditional) |
| | Impossible for clinical placement in this pandemic | |
| | In nursing profession clinical is utmost | |
| 6. | Frequently headache, dryness of eyes working on devices | Minor health problem |
| 7. | Need for training on software for virtual simulation | Training on online education |
| | Training to teachers and students | |
| | Enhancement of faculty capability on online classes | |
| | Add online courses in curriculum | Revision of curriculum |
| | Involvement of policy makers and concerned council for online educational policy | Establishment of online educational policy |
| | Clinical posting with PPE | Supplies of safety measures |
| | Establishment of high bandwidth internet | Internet establishment |
| | Internet facilities to students | |
| | Clinical Posting after pandemic is over | Safety principles |

The result shows that few faculties only perceived that they were technologically capable of engaging sufficiently in the online teaching environment. They were positive and skilled in using computers, devices, recovering, saving and managing information via online. They feel satisfied and appreciate the use of computers in the online learning environment.

**Table 4**

*Third Stage of Thematic Analysis for Developing Themes*

| S.N. | Concepts | Themes |
|---|---|---|
| 1. | Economical and easy | Positive enthusiasm |
| 2. | Technological competency | |
| 3. | Involvement in teaching learning activities | |
| 4. | Access to expertise | |
| 5. | Technological constraints | Challenges of online education |
| 6. | Environmental challenges | |
| 7. | Clinical skills challenge | |
| 8. | Unknown on files security | |
| 9. | Challenge in evaluation methods | |
| 10. | Minor health problems | |
| 11. | Reserved personal views and opinion (traditional) | Traditionalist |
| 12. | Training on online education | Seeking support |
| 13. | Establishment of online educational policy | |
| 14. | Internet and IT establishment | |
| 15. | Safety satandards | |
| 16. | Supplies of safety measures like PPE | |
| 17. | Revision of curriculum by adding online courses | Digital pedagogy in curriculum |

The findings presented as different themes, sub-themes and codes are discussed in the light of existing literature. However, being a novice area of study, very few related literature could be accessed.

**Positive Enthusiasm**

Most of the Nursing faculties reported online education as economical and easy method, access to expertise, technological competency and involvement in teaching learning activities which is similar to the study by Khati which reported that for teachers, one benefit of online learning is time flexibility. online education can serve as a long-term supplement to traditional classroom instruction (Khati & Bhatta, 2020). Another study also supported that during this epidemic, e-learning resources are essential;

they are designed to assist educators, colleges, and universities in facilitating student learning when institutions and schools are closed. Furthermore, the majority of these platforms are free, which can support ongoing education throughout the coronavirus pandemic (Sansar & Bureau, 2020).

**Challenges of Online Education**

Most of the respondents faced challenges of online education like technological constraints (electricity on and off, low-band width internet), environmental challenges (poor interaction between student and teacher), clinical skills challenge, unknown on files security, challenge in evaluation methods and minor health problems. Even if online learning offers advantages, there are currently several difficulties in Nepal. Even if it's currently the sole option and somewhat flexible, it may not be effective if physical and human resource infrastructures aren't developed first. Other difficulties could include a bad network, Internet security, and the potential for Internet addiction (Louis-Jean & Cenat, 2020). Similarly study reported that the height of the pandemic, some educational institutions were equipped to immediately shift to online distance learning and these academies were less disturbed by the pandemic whereas, other educational institutions were caught unprepared due to lack of essential e-learning facilities, lack of competencies on teaching faculties, non-teaching staffs and students, inappropriate teaching learning resources, lack of educational technologies and digital equipment (Linjawi & Alfadda, 2018). The importance of one-to-one supervision and hands-on training in technical skills like health fields poses a challenge for e-learning curricula (Cooper, Forino, Kanjanabootra & Meding, 2020).

**Traditionalist**

Educators have a responsibility to create a safe and secure virtual learning environment. In addition to ensuring that students are aware of the perspectives of those with other cultural backgrounds. Thus, in setting, the teachers' philosophy and concept to change as per situation is utmost. However due to lack of skills and digital competencies, few teachers prefer face-to-face teaching rather than online teaching (Meiselwitz & Trajkovski, 2006). The study findings is contraindicated with the study (Dariel, Wharrad & Windle, 2013). Which stated that a user's perception of improved system usability and improved learning results can be enhanced by knowledge and abilities comparable to those of basic internet use and electronic communication. However, few faculties expressed that online

pedagogy must be implemented since early school learning period, at later stage it is difficult to apply effectively. School administrators are worried that COVID-19 will result in a higher dropout rate as poverty soars. At the university level, administrators face difficulty to engage teachers in online training and they feel burden to the lower rate of attendance (Gurley, 2018).

**Seeking Support (Help Seeker)**

According to Gurley's study, teachers who have taken part in technical training programs such as faculty development, certification programs, and mentoring programs are better able to support students' learning in online and blended learning environments. Similarly another study findings shows that professional learning that is training for teachers brings changes in teacher practices and improvements in student learning outcomes (Mancuso-Murphy, 2007).

Other studies that focused on the experiences of faculty and students in the online teaching-learning environment as well as the parallels between the online learning environment and nurses' everyday interactions with technology use in practice emerged as online education became more widely used by nursing programs starting in the mid-2000s. (Simpson, 2006 ; Linjawi & Alfadda, 2018).

**Digital Pedagogy in Curriculum**

To meet the needs of globalization, much effort have been undertaken to maximize the benefits of implementing online learning methods in course curriculum. This in turn mandates the students' level of technology as well as their skills regarding online technology, communication, collaboration, and time management in online learning (Haythornthwaite, 2019). Given the resources and challenges of the online learning environment, curricula should take into account the extent of collaboration from learning about content to a broader context of confidence in groups, the development of an online knowledge community, and the elevation of collaborative practices (Russell 2015). Educators ought to incorporate cooperative learning activities. These events will foster a sense of belonging and community, which may increase student motivation and decrease dropout rates. Teachers ought to outline the technical abilities required to participate in the course (Russell 2015).

## CONCLUSIONS

Based on the findings, it was concluded that most of the participants had positive enthusiasm like flexibility, economical and easy, technological opportunities and competency. At the same time, they faced many challenges like technological, environmental, clinical skills and evaluation methods during online education. Moreover, they experienced and perceived that online class is one of the crucial modes of teaching and learning in difficult circumstances during this pandemic of corona. They tried to seek support for maintaining online environment. And at last, they emphasized to revise the curriculum including changing in modes of teaching/learning method and providing training to both nursing faculties and students in order to maintain effectiveness of online education.

## LIMITATIONS

The findings were limited to only online education experiences. Non-probability convenient sampling technique was used.

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