

Satisfaction of Online Learning among Nursing Students during COVID-19 Pandemic in Pokhara

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ABSTRACT:

Introduction: The outbreak of COVID-19 pandemic across the world has profoundly altered almost all aspects of life, including education. Conducting online learning was necessary to continue academic activities across all schools worldwide. The objective of this study was to assess satisfaction of online learning among nursing students. **Methods:** A descriptive cross-sectional study was carried out among 191 nursing students of PCL and B.Sc nursing programme. Enumerative sampling technique was used to select the sample. The self-administered web based questionnaire was used to collect data. The collected data was analysed by using descriptive and inferential statistics. **Results:** More than half (56%) of students were satisfied with online learning. A majority (95.8%) agreed that they need to be updated with the latest technology, 93.2% agreed on self-discipline is necessary during online class, 78% students agreed that they feel practical/clinical simulation exercises through online class is difficult, and 73.3% agreed the instructors organization and preparation for class provides comfortable online learning environment. However, only 23.56% of them agreed that they feel lazy and disinterested during online classes. There was significant association between level of satisfaction and type of residence, monthly family income, and academic level. **Conclusion:** More than half students are satisfied in online learning. Students' satisfaction is one of important factors for effective outcome from online learning. So, E-learning is a good opportunity to continue education in future.

Key words: COVID-19, Nursing students, Online learning, Satisfaction

INTRODUCTION:

The corona virus (COVID-19) outbreak that started from Wuhan city of China in late 2019 has declared more than four hundred thousand deaths globally.

COVID-19 pandemic has given warnings to

the entire world.[1] In March 2020, World Health Organization (WHO) declared COVID-19 as pandemic and public health emergency.[2] The alarming spread of the virus caused a havoc in the educational system forcing educational institutions to shut down.[3] The COVID-19 pandemic has a multidimensional impact globally and a huge number of students are deprived of their education. The pandemic caused to closure of more than 90% of world's school.[4]

Submitted: February 3, 2021

Accepted: January 4, 2022

Published: January 18, 2022

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How to cite this article:

Rana MM, Shrestha S. Satisfaction of Online Learning among Nursing Students during COVID-19 Pandemic in Pokhara. J Lumbini Med Coll. 2021;9(2):8 pages.

DOI:

<https://doi.org/10.22502/jlmc.v9i2.416>

Epub: January 18, 2022.

Nepal too is fighting COVID-19 pandemic like any other countries in the world.[5] On 19th March 2020, the government of Nepal officially closed all educational institutions to control the spread of COVID-19. Since March, the pandemic has kept an estimated 8.2 million Nepali children away from their traditional classrooms learning.[6]

COVID-19 has brought out a drastic change in the educational system not only in Nepal but rather the entire world. Universities across Nepal as well as around the globe have moved to virtual classes as an emergency alternative.[7] Even the government of Nepal and many universities have formalized online classes.[8] Manipal College of Medical Science also started online classes to run academic programme since 5th April 2020.

There were challenges for every institution to transform from traditional learning to complete web-based learning. One of the challenges was students' satisfaction. Since, the online learning education system is in the early stage of development in Nepal, the researchers got interested to assess satisfaction of online learning among nursing students which may provide insight on taking necessary steps for further improvements.

METHODS:

A descriptive cross-sectional study was carried out to assess satisfaction of online learning among nursing students studying in PCL (Proficiency Certificate Level) and B.Sc (Bachelor in Science) nursing programme at Manipal College of Medical Sciences, Pokhara. Census method was used to select a sample. Among 192 students, one didn't respond making the final sample size of 191.

Ethical approval was taken from Institutional Review Committee of Manipal College of Medical Science (Ref no: MEMG/IRC/429/GA) before commencing

actual study. The data was collected from 25th December, 2020 to 4th January, 2021 by using self-administered structured web-based questionnaire developed by researchers based on reviewed literatures and consulting with subject experts.[9,10,11,12]

The questionnaire consisted of 3 parts: Part I related to socio demographic characteristics, Part II focused on information related to online classes, Part III comprised of 31 items (5 negative and 26 positive items) related to satisfaction of online learning of the nursing students which was arranged under four dimension: learner's dimension (11 items), instructor's dimension (6 items), technological dimension (7 items) and course management dimension (7 items). The dimensions were graded on a five-point Likert Scale (Strongly disagree, disagree, neutral, agree and strongly agree). The negative items were reversely scored. The total score ranged from 31 to 155. The level of satisfaction was categorized as satisfied if scored more than mean and dissatisfied if scored less than and equals to mean of total score.

The tool was pretested among 10% of sample which was done in B.Sc nursing final year students, who were not included in the main study. Reliability of the instrument was tested by using internal consistency method where Cronbach's alpha value was 0.81.

The final draft of the questionnaire was converted into Google form and a web-based link was sent through messenger to all the participants. The first page of Google form included the topic, objectives of the study and consent form. The participation on the study was on a voluntary basis i.e. if the participants click "Yes" then only further link was opened. The collected data was then exported to Microsoft Excel 2016 and analysed using Statistical Package for Social Science

version 16. Descriptive statistics: frequency, percentage, mean and standard deviation and inferential statistics: Chi square test were used for data analysis. The level of confidence interval was set at 95% with p value less than 0.05.

RESULTS:

Out of 191 participants, 51.8% of them were from age group ≤ 19 years. A majority (87.4%) of them were from urban areas and 83.8% belonged to nuclear family. Most (62.7%) were studying in PCL nursing. And a majority (60.2%) had monthly family income of NRS 25,000-50,000.

Regarding information related to online classes, a majority (89.5%) of them had never received online classes before COVID-19. Similarly, 57.6% used mobile phone for online classes and 66% had got proper sound quality during online class. Most (88.5%) of them had accessibility of internet at own home, 54.5% spent more than 4 hrs for online classes and 42.9% of them faced problems during classes due to disturbances in connection.

The highest percentage (95.8%) of students agreed that they needed to be updated with the latest technology. A majority (93.2%) agreed on self-discipline is necessary during online class and 78.54% agreed on students need to be trained before undergoing online-learning activities. Regarding instructor's dimension, 78% of students agreed that they liked instructors' emphasize in maintaining the distraction free classes followed by 76.5% of them liked the instructors' teaching ability with the use of various communication techniques in online learning. And, most (73.3%) of them agreed that the instructors' organization and preparation for classes provide comfortable online learning environment. However, only 23.56% and 14.1% of them agreed that they felt lazy and disinterested during online classes and did not feel motivated to participate in online class discussions respectively. The rest of the information is showed in table 1.

Regarding technological dimension, 86.9% of students agreed on sudden interruption in delivering the information due to technological errors (internet) hinders the learning process followed by 83.2% agreed online learning improves technical skill in using electronic gadget, 79.6% agreed internet connection strength determines their effective learning opportunity. Similarly, in course management, most (78%) of the students agreed that they felt practical/ clinical simulation exercise through online class is difficult, 69.1% felt four hours per day is suitable for online class. However, only 42.9% students agreed on satisfaction with nature of online exam (Table 2). More than half (56%) of participants were satisfied with online learning (Table 3).

The association between levels of satisfaction with online learning with selected variables is depicted in table 4.

DISCUSSION:

This study attempted to identify students' satisfaction of online class during COVID-19. The findings revealed that more than half of nursing students were satisfied with online learning which is supported by study conducted in Chitwan Medical College in which 53.5% were satisfied towards online class.[9] However, the satisfaction rate is much lower compared to other study where satisfaction rate was much high (93.4%).[10] Another study reported that students' satisfaction in e-learning was significantly lower than lecturing and role playing.[12] This might be due to difference in culture of e-learning and advancement of technology in different countries.

Table 1: Participants' Response regarding Learners and Instructors' Dimension (n=191)

Learner's characteristics	Agree n(%)	Neutral n(%)	Disagree n(%)
I feel confident and enjoy using the online platform applications.	96(50.26)	78(40.84)	17(8.90)
I feel students need to be trained before undergoing online learning activities.	150(78.54)	36(18.85)	5(2.61)
I feel students need to be updated with the latest technology.	183(95.8)	8(4.2)	0
I frequently interact with other students and instructors during the courses.	94(49.2)	87(45.5)	10(5.3)
I feel online class is effective in bridging the gap of missed academic period.	130(68.06)	50(26.18)	11(5.76)
I feel self-discipline is necessary during online studies.	178(93.2)	10(5.2)	3(1.6)
I get easily distracted and have difficulty concentrating during online classes.	94(49.2)	69(36.1)	28(14.7)
I feel lack of computer skills makes me uncomfortable during online classes.	47(24.6)	71(37.18)	73(38.22)
I feel lazy and disinterested during online classes.	45(23.56)	73(38.22)	73(38.22)
I do not feel motivated to participate in online class discussions.	27(14.1)	59(30.9)	105(55)
I feel there is an easy sharing idea with colleagues in online learning.	104(54.4)	67(35.1)	20(10.5)
Instructor's Characteristics			
I feel the instructors' organization and preparation for class provides comfortable online learning environment.	140(73.3)	42(22)	9(4.7)
I like the instructors teaching ability with the use of various communication techniques in online learning.	146(76.5)	40(20.9)	5(2.6)
I like when instructor emphasizes in maintaining the distraction free classes.	149(78)	37(19.4)	5(2.6)
I am satisfied with the instructor pace of punctuality in starting the class.	127(66.5)	57(29.8)	7(3.7)
I can ask my teacher questions and receive a quick response during online class.	137(71.8)	47(24.6)	7(3.6)
Online environment makes it easier for me to communicate with my instructor than classroom environment.	66(34.5)	88(46.1)	37(19.4)

Table 2: Participants' Responses regarding Technological and Course Management (n=191)

Technological Characteristics	Agree n(%)	Neutral n(%)	Disagree n(%)
I feel the online application is easy to use.	106(55.5)	67(35.1)	18(9.4)
I feel technical issues disrupt the flow and pace of online classes.	153(80.1)	33(17.3)	5(2.6)
I feel the response time from teachers is quicker in online class.	81(42.4)	67(35.1)	43(22.5)
I feel online learning improves technical skill in using electronic gadget.	159(83.2)	29(15.2)	3(1.6)
I feel internet connection strength determines our effective learning opportunity.	152(79.6)	34(17.8)	5(2.6)
I feel charges of internet are expensive.	126(65.97)	52(27.23)	13(6.8)
I feel sudden interruption in delivering the information due to technological error (internet) hinders the learning process.	166(86.9)	20(10.5)	5(2.6)
Course Management			
I feel the contents of topic covered adequately during the online classes.	106(55.5)	61(31.9)	24(12.6)
I feel the course materials are accessible after the completion of each class.	92(48.16)	78(40.83)	21(10.99)
I feel it is easy to submit assignment in online learning.	92(48.2)	66(34.6)	33(17.3)
I feel practical/clinical simulation exercise through online class is difficult.	149(78)	34(17.8)	8(4.2)
I feel it is difficult to perform class test in online.	123(64.4)	52(27.2)	16(8.4)
I feel four hours/day is suitable for online class.	132(69.1)	46(24.1)	13(6.8)
I am satisfied with nature of online exam.	82(42.9.)	82(42.9)	27(14.1)

Table 3: Level of Satisfaction of Online Learning among Participants (n=191)

Level of satisfaction	n(%)
Satisfied	107(56)
Dissatisfied	84(44)

Table 4: Association between Levels of Satisfaction with Selected Variables (n=191)

Variables	Level of Satisfaction		χ^2	p value
Type of family	Dissatisfied	Satisfied		
Nuclear	75	85	3.35	0.06
Joint	9	22		
Type of residence				
Urban	80	87	8.3	0.004*
Rural	4	20		
Hours per day spend for online class				
≤ 4hrs	48	39	8.1	0.004*
>4hrs	36	68		
Academic level				
PCL nursing	45	75	5.5	0.01*
B.Sc nursing	39	32		
Ever received online class				
Yes	13	7	4	0.04*
No	71	100		
Monthly Income NPR				
≤50,000	55	86	5.4	0.02*
>50,000	29	21		

Regarding attending online class before COVID-19, in this findings, 89.5% students didn't attend online class before which is almost similar with other studies where 100% and 89.2% of them had never received online learning respectively.[11,13] However, present result is quite different from previous study done in Jordan where only 54.5% reported that they had never used online class before in their academic

career.[14] This might be due to advancement of other technologies.

Regarding gadgets used for online class, in this study, more than(57.6 %) students used mobile phone for online class which is consistent with other studies.[11,13] The reason might be that mobile has been a most affordable, accessible and popular electronic device for students compared to laptop and

tablet. This study found that 95.8% students agreed on that they need to be updated with the latest technology, and 80.1% agreed that technical issues disrupt the flow and pace of online classes which is almost similar with other studies which revealed 82.4% of them agreed that students need to update with the latest technology and 65.1% agreed that interruption at home or at faculty while doing e-learning respectively.[10,11] In addition, majority (83.2%) of students in our study agreed on statement 'online learning improves technical skill in using electronic gadget' which is supported by study conducted in Nepal.[11]

Present study also revealed that there was significant association between level of satisfaction and type of residence, monthly family income, hours per day spend for online class and academic level of the students which is supported by another study.[13]

The limitation of this study was that the study was conducted among nursing students of one setting with limited sample size. So, the result can't be generalized.

CONCLUSION:

This study concluded that more than half of nursing students were satisfied with online learning which showed that online learning can be considered as a viable alternative method in the academic institutions and has a lot of potential in augmenting higher education. This study also found that level of satisfaction is related to type of residence, academic level, monthly income of parents and hours per day spend for online class. So, these factors need to be considered while designing online learning programme to increase adoption and satisfaction of student.

Acknowledgement:

Mrs. Sakun Singh, Principal, and all the class co-ordinators of Manipal College of Medical Science (Nursing Programme)

Funding: No sources of funding were available.

Conflict of Interest: The authors declare that no competing interests exist.

REFERENCES:

1. Buheji M, da Costa Cunha K, Beka G, Mavrić B, De Souza YL, da Costa Silva SS, et al. The extent of covid-19 pandemic socio-economic impact on global poverty. A global integrative multidisciplinary review. American Journal of Economics. 2020;10(4):213-24. DOI: <http://article.sapub.org/10.5923.j.economics.20201004.02.html>
2. World Health Organization. Coronavirus Disease (Covid-19) pandemic [Internet]. [Accessed on 20 March 2020]. Available from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>
3. Dawadi S, Giri RA, Simkhada P. Impact of COVID-19 on the Education Sector in Nepal: Challenges and Coping Strategies [Internet]. [Accessed on 30 November 2021] <https://files.eric.ed.gov/fulltext/ED609894.pdf>
4. Khatri K, Bhatta KR. Challenges of Online Education During Covid 19 Pandemic in Nepal. International Journal of Entrepreneurship and Economic Issues. 2020;4(1):45-9. Available from: DOI: <https://www.researchgate.net/publication/343097680>
5. UNESCO. Education: From disruption to recovery [Internet]. [Accessed on 4 March 2020]. Available from: <https://en.unesco.org/covid19/educationresponse>

6. Radhakrishnan-Nair K, Aedo C, Aryal MP, Sherpa M, Sharma U. Nepal steps up remote learning during COVID-19. [Accessed on June 17 2020]. Available from: <https://blogs.worldbank.org/endpovertyinsouthasia/nepal-steps-remote-learning-during-covid-19>
7. International Labour Organization. ILO Sectoral Brief: COVID-19 and the Education Sector [Internet]. [Accessed on March, 2020] Available from: <https://www.alnap.org/help-library/i-lo-sectoral-brief-covid-19-and-the-education-sector>
8. Dhungana S. Covid-19 lockdown affects Nepali students planning to go abroad. The Kathmandu Post [Internet]. [Accessed on 25 June 2020] Available from: <https://kathmandupost.com/national/2020/06/25/covid-19-lockdown-affects-nepali-students-planning-to-go-abroad>
9. Sharma K, Deo G, Timalsina S, Joshi A, Shrestha N, Neupane HC. Online Learning in the face of COVID-19 Pandemic: Assessment of students' Satisfaction at Chitwan Medical College. Kathmandu Univ Med J. 2020;18(70):40-47. PMID: 33605237
10. Abo Seada Al, Mostafa MF. Students' Satisfaction and Barriers of E-learning Course among Nursing Students, Mansoura University. World Journal of Nursing Sciences. 2017;3(3):170-78. Available from: <https://www.idosi.org/wjns/3%283%2917/13.pdf>
11. Koirala D, Silwal M, Gurung S, Bhattarai M, KC VK. Perception towards Online Classes during COVID-19 among Nursing Students of a Medical College of Kaski District, Nepal. Journal of Biomedical Research and Environmental Sciences. 2020;1(6):249-55. DOI: <https://dx.doi.org/10.37871/jbres1151>
12. Pourghaznein T, Sabeghi H, Shariatinejad K. Effects of e-learning, lectures, and role playing on nursing students' knowledge acquisition, retention and satisfaction. Med J Islam Repub Iran. 2015;29(0):162. PMID: 26000257 PMCID: <http://www.ncbi.nlm.nih.gov/pmc/article/pmc4431360/>
13. Gupta A, Shrestha RM, Shrestha S, Acharya A, Pandey N. Perception of BDS students of Kathmandu University on online learning during COVID-19 pandemic. Orthodontic Journal of Nepal. 2020;10(2):20-8. DOI: <https://doi.org/10.3126/ojn.v10i2.31064>
14. Alqudah NM, Jammal HM, Saleh O, Khader Y, Obeidat N, Alqudah J. Perception and experience of academic Jordanian ophthalmologists with E-Learning for undergraduate course during the COVID-19 Pandemic. Annals of Medicine and Surgery. 2020;59(0):44-7. DOI: <https://doi.org/10.1016/j.amsu.2020.09.014>