# Readiness for the Online Classes during COVID-19 Pandemic among Students of Chitwan Medical College

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## ABSTRACT

Online learning has been in a rising trend across the world due to increasing technology in education. Corona Virus Disease 2019 (COVID-19) pandemic enforced all the academic institutions to start online classes for the students. But the students' readiness for the adoption of online learning remains unknown. Hence, this study aimed to assess the readiness of online classes among students. Descriptive cross-sectional web based survey was carried out among 704 students who have enrolled in various streams of Bachelor level programs in Chitwan Medical College. The finding of this study revealed that 87.1% of students from various faculties were ready for online classes during COVID pandemic and 88.8% had internet facility in their home setting. Furthermore, this study found that readiness for online classes was significantly higher among female than male students (89.7% vs. 83.5%, p=0.016) and students who had internet accessibility in their residence than those who did not have it (83.8% vs. 34.2%, p=<0.001) but there was no significant association between readiness for online classes with academic programs (p=0.062) and years (p=0.905). Therefore, online learning can be considered as a viable alternative method in the academic institutions for the students.

Keywords: COVID-19 Pandemic; online classes; readiness; students.

## INTRODUCTION

Corona Virus Disease 2019 (COVID-19) became pandemic affecting around 213 countries with 80,05,294 confirmed cases and 4,55,662 death worldwide,[1] whereas in Nepal there are 6211 confirmed cases as of June 16, 2020 and is increasing exponentially.[2] Nepal Government decided for the countrywide lockdown since March 24, 2020 and has been extended several times already.[3]

On-going COVID-19 pandemic has massive impact on educational sectors. All schools, colleges and universities are closed to flatten the infection curve through social distancing.[4] Online learning is a viable option to normalize the process of education for the medical students, preventing academic calendar backlog [5] and minimize the huge learning loses.[6] It can play the role of catalyst for active learning.[7] Online learning readiness is primary part of its adoption process so this study aimed at assessing the readiness for online classes among undergraduate students to depict the picture prior to full implementation

## STUDENTS' READINESS FOR ONLINE CLASSES

COVID-19 pandemic challenges the current environment of medical education of Nepal because students are staying in their home due to the fear of COVID-19 infection. In this situation, Government of Nepal decided online learning as alternative methods for the students studying in different educational level.[8] Prior to starting online classes, we carried out a descriptive cross-sectional survey that consisted of students who have enrolled in various academic programs such as MBBS, BDS, BPH, Bachelor in Pharmacy, B.Sc. Nursing, Bachelor in Nursing Science, BMLT, and BMIT in Chitwan Medical College (CMC), Bharatpur. After receiving ethical approval from Chitwan Medical College Institutional Review Committee (Ref: CMC-lRC/076/077-l08), online structured survey form was made accessible for 1075 students through the CMC Web Page and SMS was sent to all the students by computer system. Data was collected from 26th April 2020 to 2nd June, 2020. Then data were analysed in IBM SPSS version 20 for window using descriptive and inferential statistics.

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A total of 704 students studying in various academic programs participated in the web based survey with a response rate of 66.0%. The characteristics of students are provided in Table 1.

| Table 1. Characteristics of the Students. | | |
|---|---|---|
| Characteristics | Number | Percentage |
| **Sex** | | |
| Male | 297 | 42.2 |
| Female | 407 | 57.8 |
| **Year** | | |
| 1st | 182 | 25.9 |
| 2nd | 221 | 31.4 |
| 3rd | 169 | 24.0 |
| 4th | 73 | 10.4 |
| 5th | 59 | 8.4 |
| **Programs** | | |
| MBBS | 322 | 45.7 |
| B.Sc. Nursing | 127 | 18.0 |
| BDS | 84 | 11.9 |
| BNS | 68 | 9.7 |
| BPH | 44 | 6.3 |
| B Pharm | 37 | 5.3 |
| BMLT/BMIT | 22 | 3.2 |
| **Internet Accessibility** | | |
| No | 79 | 11.2 |
| Yes | 625 | 88.8 |

Out of 704students, more than half (57.8%) were female, and nearly half (45.7%) were studying in MBBS program. Most (88.8%) of the students had accessibility to the internet services in their residence. Overall readiness for the online classes was 87.1% where almost similar scores were found among students of different academic programs (Table 2).

| Table 2. Readiness for Online Classes among the Students. | | |
|---|---|---|
| Readiness | Number | Percentage |
| No | 91 | 12.9 |
| Yes | 613 | 87.1 |
| Total | 704 | 100.0 |

Previous studies have shown similar results elsewhere that students from medical and nursing field prefer to use internet for their e-learning.[9,10]

The present study supported the observation of similar study[11] that female students' readiness to online classes was significantly higher than male students. Evidence also reported that women are oriented to openness for other's proposals, willing to cooperate and prefer working in groups while men are more likely to solve problems on their own.[12] However, contrasting findings are reported in other studies where male medical students scored higher technology readiness than female students.[13-15] This difference might be due to difference in nature of sample and measuring instruments in the studies. Further, study showed that female undergraduate students' had tendency of underestimating their own computer skills.[16] This gender differences on readiness for online classes may bring issues like differential attendance rates between male and female, [17]differences in communicative style and approach to study , levels of achievement and motivations for subjects. So, gender equality is an important factor to be considered in designing and building the courses and programmes which might be the biggest challenges while implementing the online classes.[18]

Our observation showed the significant association between readiness and internet accessibility and this is supported by other studies[19-21]In the point that internet play an important role in determining the e-learning readiness. This could be another issue where students and instructors might face while implementing online classes for those students who do not have proper access to internet. In this study the students from various academic programs and years showed similar readiness for online classes and it is also supported by previous studies.[22,23] This can attributed to the fact that the frequency of computer utilization in students has increased tremendously over the past years. However, other studies reported varied results as PhD students showed high readiness to e- learning compared to Master's and Bachelor's students.[19,22,23] This might be due to the fact that high intellectual group students have more acceleration to the computer and internet use than younger group of scholars.

In medical education, varieties of methods such as digital libraries, distance learning networks, multimedia software, learning management systems, virtual simulations, mobile applications and other e-resources are used for e-learning in low and middle income countries.[24] Instructors may be beginner in using online platforms and they may feel apprehensive to teach via online. Evidence also showed that the instructors' computer competency, knowledge and skills are associated with their readiness to online learning. [25] Thus, it is essential for instructors to update their teaching methods, skills, and competency in technology in this paradigm shift from traditional to non-traditional education system. Considering this issues, Tribhuvan University has started training to their instructors by the use of online platforms such as google meet and Zoom meet.

Table 3. Association between Readiness for Online Classes and Selected Characteristics.

| Characteristics | Readiness for Online Classes | | $X^2$ | p value |
|---|---|---|---|---|
| | No | Yes | | |
| **Sex** | | | | |
| Male | 49(16.5) | 248(83.5) | 5.824 | 0.016 |
| Female | 42(10.3) | 365(89.7) | | |
| **Year** | | | | |
| 1st | 26(14.3) | 156(85.7) | | |
| 2nd | 28(12.7) | 193(87.3) | 1.031 | 0.905 |
| 3rd | 23(13.6) | 146(86.4) | | |
| 4th | 8(11.0) | 65(89.0) | | |
| 5th | 6(10.2) | 53(89.8) | | |
| **Programs** | | | | |
| MBBS | 54(16.8) | 268(83.2) | | |
| B.SC Nursing | 15(11.8) | 112(88.2) | | |
| BDS | 5(6.0) | 79(94.0) | 11.998 | 0.062 |
| BNS | 7(10.3) | 61(89.7) | | |
| BPH | 3(6.8) | 41(93.2) | | |
| B Pharm | 3(8.1) | 34(91.9) | | |
| BMLT/BMIT | 4(18.2) | 18(81.8) | | |
| **Internet Accessibility** | | | | |
| No | 52(65.8) | 27(34.2) | 221.218 | < 0.001 |
| Yes | 39(6.2) | 586(83.8) | | |

*Significance level at 0.05*

Furthermore, It has requested Telecom service providers to reduce the price of the mobile data plans for students.[26] Similarly, students may face many challenges like adaptability struggle, lack of strong internet connection, computer literacy, self-motivation and time management in their e-learning classes and as a result they may get difficulties in catching up their online classes effectively.[27] Likewise, online learning can leave learners in an isolated place where they may also have their own varying levels of competency and proficiency issues using different forms of IT. Therefore, students also need to be properly instructed and oriented to the online learning platforms and learning methods.[28,29] Furthermore, in medical education e-learning is suitable for some theoretical elements but it is found unsuitable for practical application which requires hands-on experience and personalised approach which is implemented through collaboration and peer review.[30,31]

This study adds to the dearth of information available regarding undergraduate medical students readiness for the online classes in Nepal. Despite of this, it has some limitations. Readiness was assessed among the students through web based survey which might not include those students who were unable to respond due to lack of internet facility. Secondly, this study could not explore the causal link between the readiness and characteristics of students. Further this study recommended to find out factors associated with readiness for online learning using a higher statistical analysis for a better understanding of factors that influence student readiness. As our survey covers the limited area of assessment more items can be added in the instrument to get the effective results in this global pandemic period.

## CONCLUSIONS

In present scenario of COVID-19 pandemic, students studying in various academic programs are ready to take online classes with regard to the continuation of normal educational activities of the students' life. Therefore, the concerned authority has to establish a systematic online platform for the students to enhance learning for the students to get updated in desired courses.

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