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Original Article

Attitude towards Online Classes among Nursing Students during COVID-19 Pandemic at Nobel Medical College Teaching Hospital

Sunaina Adhikari*

Department of Nursing, Nobel Medical College Teaching Hospital, Biratnagar, Nepal

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Abstract

Background

Corona virus disease pandemic has hastened the adoption of digital technology and online classes have become part of nursing education. The transition from face-to-face learning towards online learning is full of challenges and it is very important to explore students' viewpoints regarding online classes.

Materials and Methods

A descriptive cross-sectional study was carried out at Nobel Medical College among undergraduate nursing students. Non-probability consecutive sampling technique was adopted to collect data and 117 students participated in the study. A self-structured online form was developed and data were collected by a self-administered questionnaire through an online survey method. Data was entered and analyzed by SPSS 22.0 version. A Chi-square test was performed to assess the association between background variables and attitude level.


Results

The study revealed that 50.43% of the students had negative attitudes towards online classes. In total, two-thirds (67.5%) of students preferred face-to-face learning. Variables such as age, enrolled nursing program, and year of study was significantly associated ($p \leq 0.05$) with students' attitudes towards online classes.

Conclusion

Despite being the alternative solution, almost half of nursing students relatively had negative attitudes towards online classes. Students were more inclined towards face-to-face learning in future days.

Keywords: Attitude, Nursing, Students

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Introduction

The educational sector witnessed a massive impact with the surge of Covid-19 cases [1]. The pandemic also resulted in widespread disruption of medical education [2]. It changed the landscape of medical education from face-to-face classrooms to online learning which is full of challenges [3]. Despite being vulnerable to human existence this pandemic has hastened the adoption of digital technology and virtual learning has become a vital part of education [4]. Nurse educators are also ready to espouse online learning and recognize its uses in nursing education [5].

Online classes are a convenient, cheap and feasible method of teaching which aid in acquisition of knowledge [6]. Students perceive online learning user friendly and hence have a positive attitude towards it [7]. However, the success of online classes depends on many factors such as time, duration of the class, environment, medium of learning, communication skills of the teacher, and receptive ability of the students [8]. A study conducted among nursing students in Nepal revealed that 54.1% had a negative perception towards online classes however the majority (91.7%) is in favor of the continuation of online classes during this pandemic [9].

Though the concept of web-based learning is not new globally, in the context of developing countries such as Nepal, the practice of online classes is new among students with huge discrepancies in access and quality [10]. At this point, it seems important to explore student viewpoints regarding the virtual teaching-learning approach. The findings of the study might help in the identification of student preferences which aid in the modification of teaching-learning strategies. The objective of this study is to find out the student nurse attitudes towards online classes during Covid-19.

Materials and Methods

A descriptive cross-sectional study was carried out at Nobel Medical College Teaching Hospital from 1st to 20th December 2020. Sample estimation was done by using the Cochran formula $n = Z^2 pq / e^2$ with a 5% allowable error. Adding 10% of the non-response rate, the total sample size was 101. Non-probability consecutive sampling technique was adopted and altogether 117 Bachelor of Science (B. Sc) Nursing and Bachelor in Nursing Science (BNS) students were enrolled in the study.

A self-structured online form was developed based on available literature. Ethical clearance was obtained from the Institutional Research

Committee (IRC) of Nobel Medical College and formal permission was obtained from each student before data collection. Data were collected by self-administered questionnaire through an online survey method. The questionnaire consisted of background variables and a 5-point Likert scale ranging from strongly agree-5 to strongly disagree-1 to measure attitude.

The attitude was measured under three categories i.e., perceived advantage/disadvantage, perceived utility and the future perception regarding online classes. Altogether there were 24 items with 14 positive and 10 negative items. The negative items were calculated via reverse scoring. The total score ranged from 24 to 120; a score above the median was categorized as a positive attitude and a score equal to or below the median score as a negative attitude [9].

Content validity was maintained through an extensive literature search. Pretesting was done among 10% of the sample size among nursing students of different colleges. The value of Cronbach's alpha was 0.77 which was fairly reliable. Data was entered and analyzed by using SPSS version 22.0. A Chi-square test was performed to assess the association between background variables and attitude level.

Results

The mean age of respondents was 23.02 ± 1.3 years. Most of them (91.5%) were unmarried and the majority (65%) was from the Brahmin/Chettri ethnicity. The highest proportion (25.6%) of the study participants were from Bachelor in Nursing Science (BNS) 2nd year. More than half (56.4%) of the respondents used both mobile and laptops for online classes. The majority (68.4 %) of the respondents explained that they have average skills in operating computers. More than half (53%) of the respondents were not oriented to online classes before Covid-19. While engaging with online classes more than half (60.7%) of the respondents had vision-related problems while more than two-thirds (70.1%) developed back problems. Table 1 shows the overall attitude towards online classes. Almost half (50.4%) of the nursing students had a negative attitude towards online classes.

Table 1: Attitude toward online classes (n=117)

Variable	Frequency	Percentage
Positive attitude	58	49.6
Negative attitude	59	50.4



Figure 1 shows the perceived advantage regarding online classes. Nearly half (46.2%) of students perceived that online class are flexible. About two-thirds (64.1%) of students agreed that online learning helps to remain updated with digital technology. Forty-five percent of the student disagree that online classes are suitable for discussion and demonstration

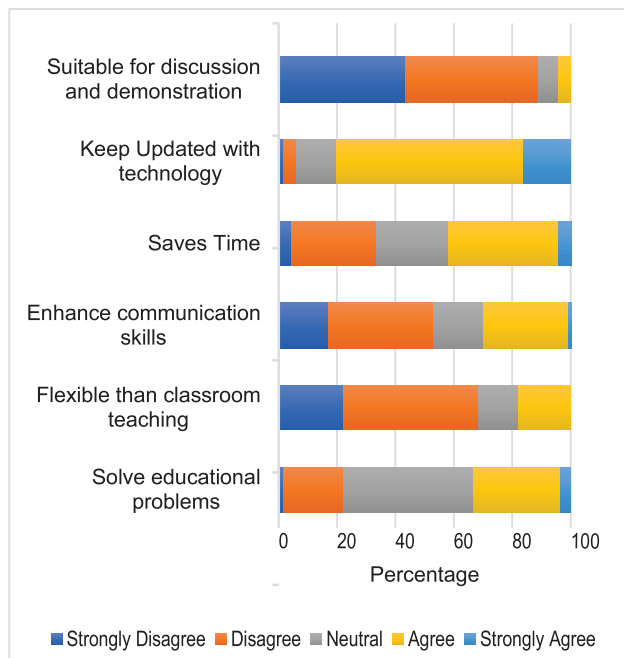


Figure 1: Perceived advantage of online classes

Figure 2 shows the majority (66.7%) of students agreed that online class requires long-term focus on the screen. More than half of students believed that online classes result in the adoption of bad posture and a half (50%) of the students agreed that online learning reduces self-confidence. The majority (40.2%) of the students think that online classes are not suitable for medical education.

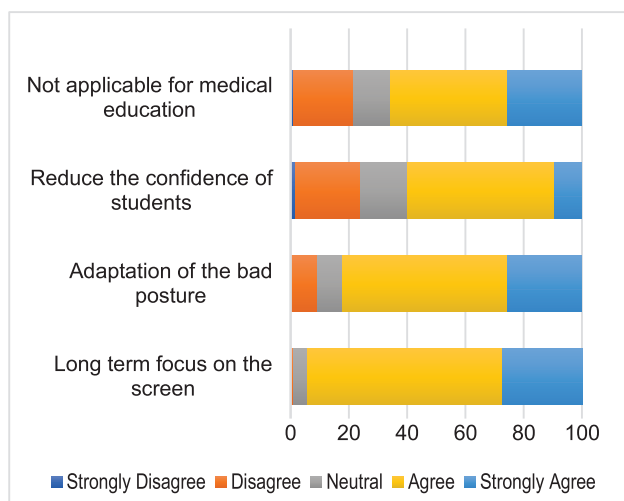


Figure 2: Perceived disadvantage of online classes (n=117)

Table 2 shows the perceived utility of online classes. Nearly two-thirds (68.4%) of the student think that online classes are disturbing due to poor network and 52.1% of the students preferred reading printed materials. The majority (67.5%) of the students preferred face-to-face learning. About sixty-five percent of students are not in favor of online learning due to reduced teacher-student interaction.

Table 2: Perceived utility regarding online classes (n=117)

Statements Perceived Utility	SD	DA	N	A	SA
1. Increases ability to understand subject matter	6 (5.1)	52 (44.4)	35 (29.9)	23 (19.7)	1 (0.9)
2. Both easy and possible	4 (3.4)	43 (36.8)	46 (39.3)	24 (20.5)	0 (0.0)
3. Often disturbing because of poor network	1 (0.9)	1 (0.9)	1 (0.9)	34 (29.1)	80 (68.4)
4. More preferable because it integrate all forms of media	6 (5.1)	28 (23.9)	54 (46.2)	25 (21.4)	4 (3.4)
5. Difficult to learn online course	0 (0.0)	16 (13.7)	17 (14.5)	68 (58.1)	16 (13.7)
6. Prefer reading from a printed source than from internet	1 (0.0)	12 (10.3)	24 (20.5)	61 (52.1)	19 (16.2)
7. Prefer face-to face learning than online	1 (0.9)	14 (12.0)	23 (19.7)	53 (45.3)	26 (22.2)
8. Feel depressed when thinking of learning the subject matter online	1 (0.9)	39 (33.3)	31 (26.5)	34 (29.1)	12 (10.3)
9. Not in favor of online class as no direct interaction with teacher	1 (0.9)	19 (16.2)	21 (17.9)	47 (40.2)	29 (24.8)
10. Feel comfortable performing online assignment	1 (0.9)	38 (32.5)	40 (34.2)	36 (30.8)	2 (1.7)

Figure 3 shows the future perception of online classes. The majority (41%) of nursing students disagree with university adoption of online classes in the future days. More than half (52.1%) believed that online classes willnot improve the quality of teaching and learning. Though one-third (33.3%) of the students agreed that online classes are cost-effective most (41.9%) of them do not think that online classes enhance learning experiences.

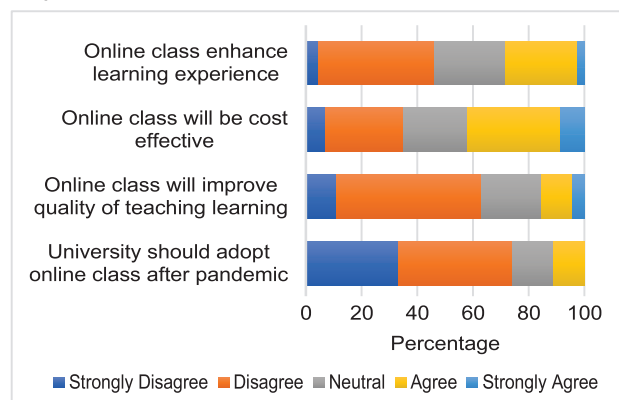


Figure 3: Future Perceptions towards Online Classes



Table 3 shows the association between online classes and the background variables where age, enrolled nursing program, and year of study have a significant association with online classes with the p-value of 0.002, 0.003, and 0.010 respectively.

Table 3: Association between Attitude regarding Online Classes with Background Variables (n=117)

Variables	Negative Attitude N (%)	Positive Attitude N (%)	P-Value
Age (in years)			
≤23	46 (61.3)	29 (38.7)	0.002*
> 23	13 (31.0)	29 (69.0)	
Marital Status			
Married	6 (60.0)	4 (40.0)	0.527
Unmarried	53 (49.5)	54 (50.5)	
Nursing Program			
BNS	13 (31.7)	28 (68.3)	0.003*
BSc Nursing	46 (60.5)	30 (39.5)	
Year of study			
BNS 2 nd year	10 (33.3)	20 (66.7)	0.010*
BNS 3 rd year	3 (27.3)	8 (72.7)	
BSc 2 nd year	15 (71.4)	6 (28.6)	
BSc 3 rd Year	19 (67.9)	9 (32.1)	
BSc 4 th Year	12 (44.4)	15 (55.6)	
Gadgets Used for Online Class			
Smart Phone/Mobile	18 (50.0)	18 (50.0)	0.121
Laptops	4 (26.7)	11 (73.3)	
Both	37 (56.1)	29 (43.9)	
Level of computer skills			
Good	11 (39.3)	17 (60.7)	0.399
Average	43 (53.8)	37 (46.3)	
Poor	5 (55.6)	4 (44.4)	
Online class before Covid-19			
Yes	28 (50.9)	27 (49.1)	0.922
No	31 (50.0)	31 (50.0)	
Vision problem			
Yes	37 (52.1)	34 (47.9)	0.651
No	22 (47.8)	24 (52.2)	
Back Pain			
Yes	45 (54.9)	37 (45.1)	0.141
No	14 (40.0)	21 (60.0)	

Discussion

The present study showed that almost half (50.4%) of the students had a negative attitude regarding online classes. A similar study conducted at a medical college in Kaski district Nepal also showed that more than half (54%) of the nursing students had negative perceptions towards online learning [9]. Other studies conducted among nursing students in India also showed unfavorable attitudes regarding online classes [11]. In this study majority of students displayed average skills in operating computers. These results are aligned with the study conducted by Gaur et al [11] where almost all (100%) students rated it at an average level. More than

half (53%) of the students were not aware of online classes before the Covid-19 pandemic. A similar study conducted among Polish Medical students showed that 60% of them were never oriented in online classes [12].

Few students (3.4%) strongly agreed that online learning solves educational problems. On the contrary, the majority of the third-year nursing students in Assiut university perceived that online learning is an educational problem solver with a maximum mean score of 4.04 ± 0.88 [5]. The same number of students also agreed that online learning reduces their confidence. About one-third of the students (37.6%) agreed that online class saves time for both teachers and students. This is in line with a study conducted in Philippines where 36.94% of nursing students believed that online class is a time saver [13]. This study highlighted the presence of vision related problem and backache among 60.7% and 70.1% of students respectively. This finding is in congruence with the study conducted among students of Pamukkale university, Turkey where there is positive correlation between eye fatigue and online education [14].

More than one-third of the students in this study were indecisive regarding the easiness of online learning. Similarly, more than two third of the students (68.4%) strongly agreed that online classes are disturbing due to poor network. However, more than half (59%) and 36.4% of medical students at Chitwan Medical College agreed that online learning is easy but can have network issues respectively [15]. More than half (58.1%) of the students felt difficulty in learning online courses however other studies argued that minimal (18%) nursing students had difficulty in online learning [9]. There exists literature that reports students' preference for face-to-face learning [16,17], like in this study where the majority (67.5%) of students agreed on preferring face-to-face learning over online learning. Sixty-five percent of students agreed on reduced interactions with the teacher in online learning. This result is consistent with the study conducted among Polish medical students where 45% believed that there is reduced student-teacher interaction with virtual learning [12]. About one-third of students in this study were indecisive being comfortable in performing online assignments however more than half (57%) of medical students had no issues with performing online assignments [6].

The study highlighted that student are not in favor of adopting online learning in the future. The findings are compatible with the study conducted among MBBS and BDS students in Pakistan



where the majority (77%) of students do not prefer online learning in future days [17]. This study too displayed a statistically significant association of attitude with age ($p=0.002$), enrolled nursing program ($p=0.003$), year of study ($p=0.010$). A study conducted among nursing students in Kaski district of Nepal also had a significant association of perception with enrolled nursing programs ($p=0.027$) [9]. This study was limited to the undergraduate nursing students at a single medical college. In addition, all information provided by respondents was self-reported. Therefore, findings may have generalizability issues.

Conclusion

Despite being the alternative for continuing education amidst Covid-19 pandemic, almost half of nursing students still had a negative attitude regarding online classes. Most students had network issues so they felt online classes disturbing and are more inclined towards face-to-face learning.

Recommendation

It is recommended to conduct qualitative studies to explore the factors for negative attitudes and ways to overcome them. For the continuation of online learning in future days, it is worth providing teachers training and inclusion of short e-courses in the curriculum so that student nurse develops positive attitudes towards it.

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Conflict of interest: None

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