Online vs. Face-to-Face: What do Nursing Students Prefer and Perceive?

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Abstract
COVID-19 pandemic has disrupted teaching in a variety of institutions. It has tested the readiness of academic institutions to deal with such crisis. In order to lessen the impact of lockdown, educators are delivering excellent education through multiple online channels, which is a paradigm change. This change requires a better understanding of how students perceive and respond to online learning in comparison to face-to-face learning, as student perception and preference are critical to teaching, as well as how to apply these approaches most effectively to improve teaching learning methods. Therefore, this study was taken up with the objective to assess the perception and preference of nursing students towards online classes vs. face-to-face classes.

This descriptive study was conducted on 113 B.Sc. and M.Sc. Nursing students from P.D. Hinduja College of Nursing, Mumbai, after taking informed consent and permission from higher authorities. A structured questionnaire through Google form was used to collect data. Out of 113 majority of the students, i.e. 69 (61.1%) strongly felt that learning is better in face-to-face classes while only 1 (0.9%) student strongly disagreed to it. Out of 113, 108 (95.6%) students preferred face-to-face class for in-depth understanding of lesson. 107 (94.7%) preferred face-to-face class for attention span. 108 (95.6%) students believe social interaction with peer groups is better in face-to-face class. 102 (90.3%) preferred face-to-face class for clarification of doubts. Overall students preferred face-to-face classes over online class. Thus, it was concluded that, students felt comfortable to learn in offline mode of class, as they could interact with their teachers and also be able to give 100% of involvement to the class without any interruption like network issues, unsuitable surrounding.

Keywords: Online Class, Face-to-Face Class, Nursing Students

Introduction
The COVID-19 pandemic wreaked havoc on almost every facet of human existence, including the educational system. It caused chaos, forcing educational institutions to halt their usual activities1. According to the United Nations Educational, Scientific, and Cultural Organization (UNESCO), over 800 million students worldwide have been affected; 1 in 5 students are unable to attend school; 1 in 4 students are unable to attend higher education classes; and 102 countries have ordered nationwide school closures, with 11 implementing localized school closures2.
Traditional educational techniques have been disrupted by social distancing and movement restriction\(^3\). In order to lessen the impact of lockdown, educators are delivering excellent education through multiple online channels, which is a paradigm change. Despite the problems faced by both educators and learners, e-learning has proven a remedy for this unprecedented global pandemic\(^3\).

The use of technology and network connectivity for teaching and learning is known as e-learning. It's also known as a technology assisted transfer of skills and information to a wide group of people. It's one of the fastest growing technological trends in education. With the introduction of the Internet and the World Wide Web, educational institutions have adapted their teaching methods in order to match user needs for a perfect learning environment\(^4\).

Information technology was used to teach and evaluate students, which helped to bridge the learning gap that arose as a result of the lockdown. In online classrooms, students could easily gain topic expertise, clear their doubts with the help of mentors, instantly exchange study material, receive speedy feedback, be more flexible, communicate with their peers, and track their academic progress\(^5\).

Although online learning continues to grow at a rapid pace, it is still in its infancy. Thus, curriculum developers need a better understanding of how students perceive and respond to online learning in comparison to traditional face-to-face learning, as student perception and preference are critical to teaching, as well as how to apply these approaches most effectively to improve teaching learning methods. Therefore, the aim of this study is to discover the perception and preference of Nursing students towards Online Classes vs. Face-to-Face Classes.

**Materials and Methods**

This descriptive study was conducted on 113 B.Sc. and M.Sc. Nursing students after taking informed consent and permission from higher authorities. A structured questionnaire through Google Form was used to collect data. There were three sections included in the questionnaire. Section 1 gathers baseline data. Section 2 of the questionnaire assesses students’ perception towards online and face-to-face classes using five-point Likert scale. Section 3 of the questionnaire assesses students’ preference towards online and face-to-face classes using a checklist. The obtained data was analyzed using descriptive statistics.

**Results**

- Out of 113 subjects, 53 (46.9%) were in age group of 17-20 years, 47 students (41.6%) in 21-24 years, 9 (8%) students in 25-28 years, and only 4 (3.5%) students in 29–32 year age group (Figure 1).
- Majority of students, i.e. 38 (33.6%) students family income was ₹10,001-35,000 (Figure 2).
- 75 students (66.4%) students lived in city during lockdown.
- 80 (70.8%) students never attended online classes before COVID-19.
- Majority of the students, i.e. 104 (92%) had mobile as personal device, and only 80 (70.8%) students among them preferred mobile for online class. Data pack as a source of internet was used by 78 (69%) students, while rest used Wi-Fi. 96 (85%) students had 4G supported mobiles.
- Majority of the students, i.e. 40 (35.4%) students used to spend 5-7 hours on devices each day for academic activities, and 57 (50.4%) students told that they got 15 minutes break between 2 online classes. 59 (52.2%) students attended online classes from their personal rooms.
Figure 1: Pie Chart Showing Distribution of Age

![Age Distribution Pie Chart]

- 17-20 years: 53
- 21-24 years: 47
- 25-28 years: 9
- 29-32 years: 4

Figure 2: Pie Chart Showing Distribution of Family Income in ₹ (Rupees) (Monthly)

![Family Income Distribution Pie Chart]

- <10000: 38
- 10001-35000: 24
- 35001-50000: 2
- 50001-100000: 2
- Above 100000: 2

Perception

- Out of 113, 69 (61.1%) strongly felt that learning is better in face-to-face classes, while only 1 (0.9%) student strongly disagreed to it.
- Majority of the students, i.e. 43 (38.1%) students disagreed that they would benefit more if online classes were there, while only 5 (4.4%) students strongly agreed that they would benefit by online class.
- 41 (36.3%) students disagreed that face-to-face classes totally can be replaced by online teaching, while 6 (5.3%) students strongly agreed to it. Only 7 (6.2%) students felt confident in online class, whereas 4 (3.5%) students strongly disagreed, and 26 (23%) students disagreed to feeling confident during online class.
- 5 (4.4%) students strongly felt that online teaching methods contribute to overall satisfaction of learning, while majority 46 (40.7%) were neutral about it.
- 47 (41.6%) students agreed, while 4 (3.5%) students strongly disagreed that they would easily get distracted during online classes.
61 (54%) students strongly believed that face-to-face classes encourages a higher level of competitiveness, while 1 (0.9%) student disagreed to it.

Majority of students, i.e. 60 (53.1%) students strongly agreed that face-to-face classes instill discipline in us, while 1 (0.9%) student strongly disagreed to it.

45 (39.8%) students agreed that they got ear ache, back pain or eye strain during online class, and 2 (1.8%) students strongly disagreed to it.

Achieving better performance (e.g. higher grades) in online class than in face-to-face classes was disagreed by 43 (38.1%) students and 8 (7.1%) students strongly agreed.

Only 3 (2.7%) students felt more motivated in online classes, and 47 (41.6%) students disagreed to it.

Table 1: Frequency Distribution and Percentage of Perception of Nursing Students towards Online and Face-to-Face Class (n = 113)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Item</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I feel learning is better in face-to-face classes.</td>
<td>69 f 61.1</td>
<td>30 f 26.5</td>
<td>11 f 9.7</td>
<td>2 f 1.8</td>
<td>1 f 0.9</td>
</tr>
<tr>
<td>2</td>
<td>I would benefit if there were more online classes.</td>
<td>5 f 4.4</td>
<td>14 f 12.4</td>
<td>41 f 36.3</td>
<td>43 f 38.1</td>
<td>10 f 8.8</td>
</tr>
<tr>
<td>3</td>
<td>I feel socially isolated in online classes.</td>
<td>13 f 11.5</td>
<td>37 f 32.7</td>
<td>34 f 30.1</td>
<td>27 f 23.9</td>
<td>2 f 1.8</td>
</tr>
<tr>
<td>4</td>
<td>I feel face-to-face classes totally can be replaced by online teaching.</td>
<td>6 f 5.3</td>
<td>11 f 9.7</td>
<td>25 f 22.1</td>
<td>41 f 36.3</td>
<td>30 f 26.5</td>
</tr>
<tr>
<td>5</td>
<td>I feel confident in online classes.</td>
<td>7 f 6.2</td>
<td>28 f 24.8</td>
<td>48 f 42.5</td>
<td>26 f 23</td>
<td>4 f 3.5</td>
</tr>
<tr>
<td>6</td>
<td>I feel online teaching methods contribute to my overall satisfaction of learning.</td>
<td>5 f 4.4</td>
<td>13 f 11.5</td>
<td>46 f 40.7</td>
<td>40 f 35.4</td>
<td>9 f 8</td>
</tr>
<tr>
<td>7</td>
<td>I believe online classes do not offer any advantages to me.</td>
<td>2 f 1.8</td>
<td>16 f 14.2</td>
<td>50 f 44.2</td>
<td>38 f 33.6</td>
<td>7 f 6.2</td>
</tr>
<tr>
<td>8</td>
<td>I get bored in face-to-face classes.</td>
<td>3 f 2.7</td>
<td>11 f 9.7</td>
<td>34 f 30.1</td>
<td>52 f 46</td>
<td>13 f 11.5</td>
</tr>
<tr>
<td>9</td>
<td>I feel less stressed in online classes.</td>
<td>13 f 11.5</td>
<td>51 f 45.1</td>
<td>32 f 28.3</td>
<td>13 f 11.5</td>
<td>4 f 3.5</td>
</tr>
<tr>
<td>10</td>
<td>I easily get distracted during online classes.</td>
<td>25 f 22.1</td>
<td>47 f 41.6</td>
<td>20 f 17.7</td>
<td>17 f 15</td>
<td>4 f 3.5</td>
</tr>
<tr>
<td>11</td>
<td>I believe face-to-face classes encourage a higher level of competitiveness among us.</td>
<td>61 f 54</td>
<td>35 f 31</td>
<td>16 f 14.2</td>
<td>1 f 0.9</td>
<td>0 f 0</td>
</tr>
<tr>
<td>12</td>
<td>I believe face-to-face classes instill discipline in us.</td>
<td>60 f 53.1</td>
<td>35 f 31</td>
<td>11 f 9.7</td>
<td>6 f 5.3</td>
<td>1 f 0.9</td>
</tr>
<tr>
<td>13</td>
<td>I get ear ache, back pain or eye strain</td>
<td>35 f 31</td>
<td>45 f 39.8</td>
<td>21 f 18.6</td>
<td>10 f 8.8</td>
<td>2 f 1.8</td>
</tr>
</tbody>
</table>
I think that it is easier to achieve better performance (e.g. higher grades) in online class than in face-to-face classes.

I feel more motivated in online classes.

I feel face-to-face classes enable me to accomplish my assignment fast.

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Preference

- Out of 113, 108 (95.6%) students preferred face-to-face class for in-depth understanding of lesson.
- 107 (94.7%) preferred face-to-face class for attention span. 108 (95.6%) students believe social interaction with peer groups is better in face-to-face class.
- 102 (90.3%) preferred face-to-face class for clarification of doubts.
- 111 (98.2%) students preferred face-to-face class for learning clinical skills.
- 82 (72.6%) students agreed that time management skills are better in face-to-face class, while 31 (27.4%) students preferred online class.
- 108 (95.6%) students believed group discussion is better in face-to-face class.
- Interaction with teacher was better in face-to-face class was agreed by 105 (92.9%) students.
- 102 (90.3%) students preferred face-to-face classes for more interesting classes.
- Overall students preferred face-to-face classes over online class. (Table 2)

Table 2: Frequency Distribution and Percentage of Preference of Nursing Students towards Online and Face-to-Face Class (n = 113)

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Item</th>
<th>Face-to-Face</th>
<th>Online</th>
</tr>
</thead>
<tbody>
<tr>
<td>f</td>
<td>%</td>
<td>f</td>
<td>%</td>
</tr>
<tr>
<td>1</td>
<td>The content of the lesson is understood in-depth in</td>
<td>108</td>
<td>95.6</td>
</tr>
<tr>
<td>2</td>
<td>Attention span is better in</td>
<td>107</td>
<td>94.7</td>
</tr>
<tr>
<td>3</td>
<td>Social interaction with peer group is good in</td>
<td>108</td>
<td>95.6</td>
</tr>
<tr>
<td>4</td>
<td>Clarification of doubts are better in</td>
<td>102</td>
<td>90.3</td>
</tr>
<tr>
<td>5</td>
<td>Accessibility is convenient in</td>
<td>85</td>
<td>75.2</td>
</tr>
<tr>
<td>6</td>
<td>Opportunity to learn clinical skill is best in</td>
<td>111</td>
<td>98.2</td>
</tr>
<tr>
<td>7</td>
<td>Interpersonal skills are developed well in</td>
<td>111</td>
<td>98.2</td>
</tr>
<tr>
<td>8</td>
<td>Retention of learning is better in</td>
<td>106</td>
<td>93.8</td>
</tr>
<tr>
<td>9</td>
<td>Time management skills is better in</td>
<td>82</td>
<td>72.6</td>
</tr>
<tr>
<td>10</td>
<td>Group discussion is better in</td>
<td>108</td>
<td>95.6</td>
</tr>
<tr>
<td>11</td>
<td>Interaction with teacher is better in</td>
<td>105</td>
<td>92.9</td>
</tr>
<tr>
<td>12</td>
<td>Classes are more interesting in</td>
<td>102</td>
<td>90.3</td>
</tr>
</tbody>
</table>
Discussion
COVID-19 pandemic has disrupted teaching in a variety of institutions. It has tested the readiness of academic institutions to deal with such crisis. The outbreak triggered new ways of teaching online. Rapid developments in education technology have provided many new options of learning to students and thus made this research important to determine their preferences for the same.

This study aims to assess the perception and preference of students towards online and face-to-face to learning at P.D. Hinduja College of Nursing. The study was carried out in Mumbai, with 113 respondents studying in Bachelor of Science in Nursing & Master of Science in Nursing, it consisted only of female students within 17-32 years which is similar to the study conducted in Indonesia among medical students.

The analysis revealed that the students faced difficulties when attending online classes. Based on the findings, these challenges lie in students’ struggle to adapt to online courses, lack of direct contact with the faculty, lack of motivation to attend classes, lack of competitiveness, various health issues, decreased level of confidence, and more chances of distraction. This list of challenges should be considered by course coordinators and program chairs by offering solutions to these challenges. Students viewed the issue of adapting to the transference from face-to-face to online instructions as a challenge. The factors like social isolation and level of confidence has received neutral responses between online and offline learning as per the respondents.

The findings of the study support the survey conducted by Yun Hong et al. in Guanghua School of Stomatology, Sun Yat-sen University, Guangzhou, China, which analyzed the comparison of online and offline theoretical teaching revealed that the teachers and students agree that the overall teaching experience and learning effect of online courses are inferior to offline.

A study conducted by Muthuprasad T. et al. regarding the “Students’ perception and preference for online education in India during COVID-19 pandemic” indicated that majority of the students evinced a positive attitude towards online classes in the wake of corona. The online learning was found to be advantageous as it provided flexibility and convenience for the learners. Students preferred well-structured content with recorded videos uploaded in university websites.

The students have their own reasons for preferring a particular platform. Their reasons to prefer offline platform over online includes teacher-student interaction, doubt clarification, better opportunity to learn clinical skill, social interaction with peer group, development of interpersonal skills, and better attention span.

Conclusion
In this study, it is concluded that, students felt comfortable to learn in offline mode of class, as they could interact with their teachers and also be able to give 100% of involvement into the class without any interruption like network issues, unsuitable surrounding, etc. In classroom teaching, learner does practicals in labs and other peer group discussion which is hardly available using online tools. This study also indicates that even in this technology driven world, maximum students want offline classes to avoid
various issues in terms of understanding, practical knowledge, to enhance health, etc. In physical classroom, learning is more useful for students to have overall development. In spite of the difficulties faced, students are adapting to this new mode of learning and attending classes successfully to avoid interference in their career.

Recommendations
- The teacher-student interaction plays an important in determining the platform and accordingly it needs improvement in the learning environment.
- The topic offers a great scope for further studies where such comparative analysis can be made on a larger scale and covering actual performance evaluation and comparison over both the platforms.
- Provide a reference for college educators to carry out teaching reform.

Limitations
- This study surveyed students in Nursing courses only. Results therefore cannot be generalized to other field's students.
- Students surveyed were at one college, so these results cannot be generalized to students at other colleges.

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