Level of satisfaction on online teaching method among undergraduate students – A Descriptive Cross-sectional study

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ABSTRACT

Introduction: Formal education is the smooth pathway for learning, or gaining of knowledge, skills and values in a controlled atmosphere with the avowed goal of instructing students. The deadly infectious disease COVID-19 had a significant impact on the global economy and education sector forced many schools and colleges to remain closed temporarily. So, many colleges and universities have begun to offer online courses as a viable alternative to traditional face-to-face instruction. Nearly 30% of students were taking a course online with 21% growth rate for online enrollment of the overall higher education student population. Aim and Objective: The aim of the study is to assess the level of satisfaction on online teaching method among undergraduate students with their selected demographic variables. Methodology: The study was a descriptive cross-sectional study conducted with 100 undergraduate students selected by using purposive sampling technique. Satisfaction level was assessed by using self-structured Student’s satisfaction scale. Results: 1(1%) of the student was dissatisfied, 1 (1%) of the student was moderately dissatisfied, 67 (67%) of the students were moderately satisfied and 31 (31%) of the students were satisfied with online method of teaching. The overall mean score on level of satisfaction online teaching method was 74.72 ±11.14. Conclusion: Domains such as teaching strategies, student involvement and learning outcome are critical for educational management to achieve higher levels of satisfaction and performance for online courses among students.

Keywords
Online teaching method, Undergraduate students and satisfaction.
Satisfaction among students and faculties is defined as an attitude arising from an assessment of the educational experience, facilities, and services [8]. Online education is a new domain of learning that combines distance education with the practice of face-to-face instruction utilizing computer-mediated communication [9]. Higher education institutions are increasingly incorporating online learning into their curricula. Faculty satisfaction is defined as the perception/belief that online teaching process is efficient, effective and beneficial for both student and faculty [10].

Online education programs in nursing are growing popular in increased numbers. Associate’s degrees to doctoral degrees are available online. Critical thinking, deep learning, collaborative learning, and problem-solving skills were enhanced through online education. Students are still needed to take part in class, learn the content, turn in assignments, and work on group projects. Teachers must still create curricula, improve instructional quality, respond to class queries, stimulate the students to learn, and grade assignments [11].

The educational system during COVID-19 era is characterized by a 'new normal'. Online learning has been utilised as a supplement to traditional classroom instruction. COVID-19 is responsible for the abrupt shift from face-to-face instruction to entirely online learning [12]. Several advantages of online learning for learners have been reported in the literature, including easy accessibility to knowledge, proper content delivery, content standardization, personalized instruction, self-pacing, interactivity and increased convenience [13].

Numerous studies have measured either student or faculty satisfaction with online learning before COVID-19. To the best of our knowledge, no study has measured students’ satisfaction on online teaching method during COVID-19 pandemic among undergraduate students. Therefore, this study aimed to identify level of satisfaction among students on online teaching method during COVID-19 pandemic. Hence the present study was planned to assess the level of satisfaction on online teaching method by domain wise and to associate level of satisfaction on online teaching method with their selected demographic variables among undergraduate students.

**METHODOLOGY**

A Descriptive cross-sectional study was conducted among undergraduate students. 100 undergraduate students were selected by purposive sampling technique in Saveetha College of Nursing, Chennai. The study participants were a) Nursing students attending online classes in selected nursing college. b) Students between the age group 18 to 23 years. c) Students of both the sexes were included in the study d) Students who are able to read and write Tamil and English. e) Students who are willing to participate in the study. During the initial interview, the purpose of the study was explained to the participants. Written informed consent was obtained from the participants in their preferred language. The participants have been informed that participation is voluntary and they can withdraw from the study at any time. Confidentiality of information was achieved by maintaining anonymity of the participants. Formal permission was obtained from the concerned authorities to conduct the study. The data collection was done with socio-demographic questionnaire followed by Student's satisfaction scale.

**Student's Satisfaction Scale** is a self-structured tool which consists of 25 questions based on three domains such as teaching strategies, student involvement and learning outcome was used in the study. It is a 4 point likert scale with score were interpreted as 1- 25 as dissatisfied, 26 – 50 as moderately dissatisfied, 51 – 75 as moderately satisfied and 76 – 100 as satisfied. The reliability of the tool was found to be 0.96 (highly reliable) by Cronbach's alpha method. About 15-30 minutes were spent on each participant to elicit data using the selected tool.

Descriptive statistics were used to describe the demographic variables, clinical variables and the level of satisfaction on online teaching method. Demographic variables and level of satisfaction were given in frequencies with percentage. Association between level of satisfaction on online teaching method among undergraduate students with their selected demographic variables was analyzed using Chi-Square test. P<0.05 was considered as statistically significant.

**Results** – About 100 undergraduate students participated in the study. Based on the demographic variables, 48(48%) were aged 19 years, 65(65%) were female, 49(49%) were belonging to lower middle class family, 42(42%) were residing in rural area, 92(92%) used smart phone for online classes and 71(71%) spent about 6 – 8 hours in online per day.

**LEVEL OF SATISFACTION**

Table 1 shows level of satisfaction among undergraduate students assessed using Student's Satisfaction
Scale. Nearly about 1(1%) of the student was dissatisfied, 1 (1%) of the student was moderately dissatisfied, 67 (67%) of the students were moderately satisfied and 31 (31%) of the students were satisfied with online teaching method [Figure 1].

Table 1
Frequency and percentage distribution of level of satisfaction on online teaching among undergraduate students. N = 100

<table>
<thead>
<tr>
<th>Level of Satisfaction</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissatisfied (1 – 25%)</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Moderately Dissatisfied (26 – 50%)</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Moderately Satisfied (51 – 75%)</td>
<td>67</td>
<td>67%</td>
</tr>
<tr>
<td>Satisfied (76 – 100%)</td>
<td>31</td>
<td>31%</td>
</tr>
</tbody>
</table>

Table 2 shows domain wise level of satisfaction on online teaching method among undergraduate students. In teaching Strategies – 1(1%) of the student was dissatisfied, 2(2%) of the students were moderately dissatisfied, 65 (65%) of the students were moderately satisfied and 32 (32%) of the students were satisfied with online teaching method. In Student Involvement – 1(1%) of the student was dissatisfied, 2(2%) of the students were moderately dissatisfied, 77 (77%) of the students were moderately satisfied and 20(20%) of the students were satisfied with online teaching method. In learning Outcome – 1(1%) of the student was dissatisfied, 5(5%) of the students were moderately dissatisfied, 72 (72%) of the students were moderately satisfied and 22(22%) of the students were satisfied with online teaching method [Figure 2].

For teaching strategies, the mean and standard deviation were 24.16 and 3.82. For student involvement, the mean and standard deviation were 23.75 and 3.77. For learning outcome, the mean and standard deviation were 26.81 and 4.44. For overall level of satisfaction on online teaching method among undergraduate students, the mean and standard deviation were 74.72 and 11.14 [Figure 3].

Table 3 shows association between socio-demographic variables with level of satisfaction on online teaching method was analyzed using Chi square test. Demographic variable device used for online learning (c²=51.307, p=0.0001) had shown statistically signifi-
icant association with level of satisfaction on online teaching method among undergraduate students. The other demographic variables had no significant association with online teaching method among undergraduate students.

DISCUSSION

The present study results revealed that 1(1%) of the student was dissatisfied, 1 (1%) of the student was moderately dissatisfied, 67 (67%) of the students were moderately satisfied and 31 (31%) of the students were satisfied with online teaching method.

The present study results were supported by the following studies. **Wiam Elshami et al. (2021)** conducted a cross-sectional survey to assess the satisfaction perspective with online learning among 370 students and 81 faculties. The study result showed that 68.7% (n = 246) were less satisfied with online learning, and 41.6% (n = 149) would not recommend the online learning experience to others. 60.9% (n = 218) of the students were satisfied with the communication during online learning and 47.5% (n = 170) of the students were satisfied with the flexibility afforded during online learning, 34.4% (n = 123) were dissatisfied with collaborative activities during online learning[7]. **Ence Surahman et al. (2020)** conducted a descriptive study to measure the level of student satisfaction with online learning services in higher education among 224 undergraduate students. The study result showed that 19% of the students were very satisfied, 41% satisfied, 30% dissatisfied, and 10% very dissatisfied[14].

**Laurentiu Gabriel T et al. (2020)** carried out a descriptive study to examine the level of satisfaction on online teaching-learning method among 726 students. The study result revealed that 39.1% of the students being very satisfied by the E-learning process, 31.9% were undecided, and 29% were dissatisfied by the E-learning process and Bachelor students mention that online teaching is much more difficult than offline teaching ($\chi^2 (2) = 21.44, p = 0.001$)[15]. **Charles Dziuban et al. (2015)** conducted a survey on student satisfaction with online learning as a psychological contract among 1217 students. The study result also showed that 4% of students were dissatisfied, 5% of students ambivalent and 91% of students were satisfied on online learning method[16].

The present study results revealed that in teaching strategies domain – 1(1%) of the student was dissatisfied, 2(2%) of the students were moderately dissatisfied, 65 (65%) of the students were moderately satisfied and 32 (32%) of the students were satisfied with online teaching method. Student involvement domain – 1(1%) of the student was dissatisfied, 2(2%) of the students were moderately dissatisfied, 77 (77%) of the students were moderately satisfied and 20 (20%) of the students were satisfied with online teaching method. And in learning outcome – 1(1%) of the student was dissatisfied, 5(5%) of the students were moderately dissatisfied, 72 (72%) of the students were moderately satisfied and 22 (22%) of the students were satisfied with online teaching method.

The present study is in consistent with the following studies. **Wiam Elshami et al. (2021)** conducted a cross-sectional survey to assess the satisfaction perspective with online learning among 370 students and 81 faculties. The study result revealed that the instructor subscale yielded the highest mean score ($M = 3.36 \pm 0.82$), followed by the technology subscale ($M = 3.31 \pm 0.88$) mean score of less than 3.4 out of 5 in all subscales. The instructor subscale yielded the highest mean score ($M = 3.36 \pm 0.82$), followed by the technology subscale ($M = 3.31 \pm 0.88$) mean score of less than 3.4 out of 5 in all subscales. The instructor subscale yielded the highest mean score ($M = 3.36 \pm 0.82$), followed by the technology subscale ($M = 3.31 \pm 0.88$)[7]. **Ram Gopal et al. (2021)** conducted a cross-sectional descriptive study to identify the factors affecting students’ sat-

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Dissatisfied</th>
<th>Moderately Dissatisfied</th>
<th>Moderately Satisfied</th>
<th>Satisfied</th>
<th>Chi-Square Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Device used for online learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smartphone</td>
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<td>0</td>
<td>62</td>
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<td>0</td>
<td>0</td>
<td>5</td>
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<tr>
<td>Desktop</td>
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<td>Tablet</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.0</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 3
Association between level of satisfaction on online teaching among undergraduate students with selected demographic variables

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Dissatisfied</th>
<th>Moderately Dissatisfied</th>
<th>Moderately Satisfied</th>
<th>Satisfied</th>
<th>Chi-Square Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
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</tbody>
</table>

$\chi^2 = 51.307$
$df = 6$
$p = 0.0001$
$\leq 0.001$
$S***$
satisfaction and performance regarding online classes during the pandemic period of COVID–19 among 544 students. The study result showed that four independent factors such as quality of instructor, course design, prompt feedback and expectation of students had positive impact on students’ satisfaction and performance \((p = 0.001)\)\(^{17}\). Prodanovic M et al. (2021) conducted a descriptive study to assess the students’ satisfaction with learning experience in COVID-19 imposed virtual education environment 87 university students. The results highlighted that highest mean value obtained for satisfaction with teacher-student communication, with mean value of 3.91 and teacher-student communication regards the feedback, in-class and test-related, with mean value of 3.75\(^{18}\).

The findings of the present study showed that the demographic variable device used for online learning \((c^2=51.307, p=0.0001)\) had shown statistically significant association with level of satisfaction on online method of teaching among undergraduate students. The other demographic variables had no significant association with online teaching method among undergraduate students.

The present study is supported by the following study. Jasmine Paul et al. (2019) carried out a comparative analysis to determine the student performance between online and face to face method on environmental science class among 548 students. The study result also showed no significant difference in student performance between online and face to face method in respect to gender \([t(145) = 1.42, p = 0.122]\)\(^{19}\).

Globally it was observed that most of the students were dissatisfied with online teaching method. The present findings highlighted the need for a comprehensive view of the pedagogy of online education that integrates technology to support teaching and learning. The study concluded that factors causing dissatisfaction include limited internet access, and low lecturer’s attachment and guidance. Technical difficulties can be solved through prerecording video lectures and testing the content.

LIMITATIONS

The study has some limitations. The researcher could not generalize the study findings as the sample size is relatively small and limited to 100 undergraduate students. Only second year nursing students attending online classes were included into the study as a sample representative. Another limitation is only the level of satisfaction on online teaching method among undergraduate students was assessed. Psychological well-being and level of satisfaction among undergraduate students can differ based on their cultural differences and background. The current study has only few supportive studies in Indian Population due to paucity of literature.

CONCLUSION

Nurse Educator plays a pivotal role in improving the level of satisfaction on online learning among students. The present study findings highlighted the importance student’s satisfaction level in online learning to promote psychological well-being among students and to improve the proficiency in nursing care. The study concluded that domains such as teaching strategies, student involvement and learning outcome are critical for educational management in order to achieve higher levels of satisfaction and performance for online courses among students. They should also conduct periodic evaluation of student’s satisfaction level status and develop curriculum according to student’s need that help in creating healthy learning environment.

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Nil

CONFLICT OF INTEREST –

Nil

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