

A STUDY TO ASSESS THE IMPACT OF ONLINE CLASSES DURING COVID-19 PANDEMIC AMONG NURSING STUDENTS

Author's Name: ¹Mrs. Rossily Nirmal, ²Ms. Neha Singh, ³Ms. Kashish Naaz

Affiliation: ¹HOD of Obstetrics and Gynecology, Sahara College of Nursing, Lucknow, India

²Lecturer of Mental Health Nursing, Sahara College of Nursing, Lucknow, India

³Lecturer of Medical Surgical Nursing, Sahara College of Nursing, Lucknow, India

E-Mail: kashishnaz40@gmail.com

DOI No. – 08.2020-25662434

Abstract

Online Learning in nursing curriculum is important, as it allows learners to learn in their own time and place. Moreover, while it allows learners to be self-directed, it also provides them with the ability to connect online to download resources that are essential for their educational requirements. Online classes were the ultimate method for imparting education to students in the aftermath of COVID-19 for both practical and theory-oriented lesson; virtual mediums were used across different education fields to ensure the continuity of classes. To assess the impact of online classes & find out the association between impact of online classes with their demographic variables. descriptive, cross-sectional research design was used by using census method the study was conducted on 248 samples. Data was collected by 5 point likert rating scale to assess the impact of online classes during covid-19 pandemic among nursing students. The mean score obtained by the respondents was 103.7 and standard deviation was 12.37. The median score was 104 with minimum perception score of 63 and maximum score of 146. The overall level of impact of students towards online learning. More than half of the students (53.22%) had negative impact and (46.77%) had positive impact towards online classes. There is no statistically significant association of impact of online learning with selected demographic variables.

Keywords: Impact, Online learning, nursing students

INTRODUCTION

The world is battling COVID-19 and economies across the globe have declared a lockdown. Following government instructions, even the academic institutions had to shut down temporarily, affecting academic delivery. Thus, they had to find new alternatives to academic delivery, and virtual classes were the way forward.ⁱ

Globally, over 1.2 billion children are out of the classroom. As a result, education has changed dramatically, with the distinctive rise of e-learning, where by teaching is undertaken remotely and on digital platforms. In India too, the government as a part of the nationwide lockdown has closed all educational institutions, as a consequence of which, learners ranging from school going children to postgraduate students, are affected.

The UNESCO report estimates that the corona virus pandemic will adversely impact about 32 crore students are affected in India, including those in schools and colleges. With this sudden shift away from the classroom in many parts of the globe, some are wondering whether the adoption of online learning will continue to persist post-pandemic, and how such a shift would impact the worldwide education system, so many different ways to define e-learning and the educational approaches that can be taken in these learning environments, many colleges and extra curriculum activity classes have started making use of the technology.ⁱⁱ Through applications such as Zoom, Google meet etc in various colleges' especially medical students and nursing students.

In light of rising concern about the COVID-19 pandemic, a growing number of universities across the world have either postponed or cancelled all campus events such as regular classes, clinical workshops, and conferences. However, with government recommendation, Universities and Colleges are shifting from face to face learning to online learning.ⁱⁱⁱ This includes video conferencing, Webinars, and giving students PowerPoint presentations of the topics online. As the current conditions are not suitable to reopen classrooms for a more traditional face to face teaching, online education seems to be the way to follow for now, until the pandemic is controlled (COVID-19, 2020).

Introducing the Online Learning in nursing curriculum is important, as it allows learners to learn in their own time and place. Moreover, while it allows learners to be self-directed, it also provides them with the ability to connect online to download resources that are essential for their educational requirements. Online learning is not only one effective way to meet the needs of different learners, but it all incorporates a new style of education through technology for the up-and-coming generation of learners. Online learning, an active learning process, places responsibility on the learners themselves. It also reaches different learning styles. E-learning is a way to incorporate technology to better reach a variety of learners.^{iv}

This has caused a lot of stress not only for students but also for faculties and authorities. Due to the COVID-19, there is an issue- How to complete syllabus and conduct mid-term/final examinations in time? The careers of this year's university graduates are likely to be severely affected by the pandemic. The higher education institutions have experienced major teaching interruptions and as a result the final year students may be biggest sufferers as they are experiencing major interruptions both in studies and assessments.

OBJECTIVES

- To assess the impact of online classes.
- To find out the association between impact of online classes with their demographic variables.

RESEARCH METHODOLOGY

A descriptive, cross-sectional research design was used to conduct the study among nursing students studying at **Sahara College of Nursing & Paramedical Sciences**. The total numbers of sample were 248. All nursing students studying at this college were included in the study using census method. Those students who were sick and unable to respond and were unwilling to participate were excluded from the study.

An electronic self structured questionnaire developed through extensive review of related literature and after consultation with experts was used for data collection. The questionnaire was organized into 2 parts:

Part I: consisted of questions related to demographic variables and online learning related information.

Part II: consisted of Likert scale for the measurement of impact. It included thirty statements using 5 point Likert scale (1= strongly disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= strongly agree). The total score range from **30 to 150**.

The level of impact was computed by using median score and was categorized as:

1. **Score above the median= Positive impact and**
2. **Score equal to or below the median score= Negative impact.**

Informed verbal and written consent were taken from the respondents after giving information

about the nature of the study and use of the data. Researchers collected the data in the month of May 2021 by giving instruction to self-administer the questionnaire sent through email. Respondents' dignity was maintained by giving right to reject or discontinue their participation from the study at any time without any penalty. Confidentiality and anonymity was maintained by not disclosing the name and other information of the respondent except its use in the study. Before receiving the filled form from respondent, the filled instrument was rechecked for completeness and consistency. After data collection, data were coded and entered in IBM SPSS, version 25.

ANALYSIS

Data were analyzed by employing descriptive statistical method which includes frequency, mean, standard deviation and inferential statistical method such as chi-square test. Statistical significance was considered at $p < 0.05$.

RESULT

TABLE-1 Frequency and percentage distribution of demographic variables among nursing students.

(n=248)

DEMOGRAPHIC VARIABLE		FREQUENCY	PERCENTAGE (%)
MARITAL STATUS	Single	240	96.8
	Married	8	3.2
EDUCATION LEVEL	Intermediate	104	41.9
	Graduate	136	54.8
	Post graduation	3	1.2
	Diploma	5	2
RELIGION	Hindu	234	94.4
	Muslim	7	2.8
	Christian	5	2
	Other	2	0.8
COURSE	GNM	67	27
	B.Sc. Nursing	181	73
CURRENT PLACE OF RESIDENCE	Urban	145	58.5
	Semi Urban	40	16.1
	Rural	63	25.4
TYPE OF FAMILY	Joint	71	28.6
	Nuclear	177	71.4
SOURCE OF INFORMATION REGARDING ONLINE LEARNING	Internet	233	94
	Television	5	2
	Peer group	10	4
PREVIOUS E- LEARNING EXPERIENCE	Yes	163	65.7
	No	85	34.3

Table-1 above shows the Majority of the students (96.8 %) were single and (54.8 %) were graduate, (94.4%) students were Hindu, (73 %) students were belonging to BSC nursing course. Almost (58.5 %) were residing in urban area, (71.4 %) had nuclear family (94 %) students had internet were the source of information regarding online learning, (65.7 %) students had previous e- learning experience regarding online learning.

Table-2 Mean and SD of demographic variable (age, income) among nursing students. (n=248)

Demographic variable	Mean	SD
AGE	21.08	2.08
FAMILY INCOME	30545	19871

Table-2 above shows that the mean age of the respondents was 21.08 (SD ± 2.08) and the mean family income of respondents was 30545 (SD ± 19871).

Table-3 Impact of online learning during covid-19 pandemic among nursing students. (n=248)

Statement	Strongly Disagree (%)	Disagree (%)	Neutral (%)	Agree (%)	Strongly Agree (%)
1. Do you think corona virus has a positive impact on your study pattern?	76 (30.6)	38 (15.3)	41(16.5)	30(12.1)	63(25.4)
2. Do you think that e-learning is showing effective impact on your psychological health?	22(8.9)	39(15.7)	67(27)	56(22.6)	64(25.8)
3. Do you think e- learning is a successful alternative during COVID crisis?	24(9.7)	16(6.5)	48(19.4)	81(32.7)	79(31.9)
4. Do you think that there are difficulties with the new pattern of learning?	16 (6.5)	19 (7.7)	35 (14.1)	94(37.9)	84 (33.9)
5. Do you think that online learning is better alternative than traditional learning?	88 (35.5)	67 (27)	47 (19)	17 (6.9)	29 (11.7)
6. Do you think that online classes are cheaper than traditional learning?	36 (14.5)	47 (19)	60 (24.2)	53 (21.4)	52 (21.0)
7. Do you think that online classes will be helpful in enhancing your hand on skills?	72 (29)	54 (21.8)	57 (23)	32 (12.9)	33 (13.3)
8. Do you think that by staying at home you were able to manage online classes?	42 (16.9)	50 (20.2)	42 (16.9)	61 (24.6)	53(21.4)
9. Do you feel that your parents were able to afford your internet facility?	15 (6)	32 (12.9)	52 (21)	59 (23.8)	90 (36.3)
10. Do you feel that the 40 min of online classes were effective for your learning process?	38 (15.3)	60 (24.2)	64 (25.8)	49 (19.8)	37 (14.9)
11. Do you think that the online examination will be the good preference for passing the exams?	72 (29)	44 (17.7)	53 (21.4)	44 (17.7)	35(14.1)
12. Do you think that e-learning is beneficial for completing syllabus in COVID crisis?	34 (13.7)	31 (12.5)	51 (20.6)	69 (27.8)	63 (25.4)
13. Do you think that e-learning is an innovative concept and must be encouraged?	23 (9.3)	51 (20.6)	70 (28.2)	75 (30.2)	29 (11.7)
14. Do you think that online class saves time more than regular classes?	47 (19)	36 (14.5)	60 (24.2)	48 (19.4)	57 (23)
15. Do you feel that you are comfortable while conversing through this text-based medium?	37 (14.9)	58 (23.4)	60 (24.2)	61 (24.6)	32 (12.9)
16. Do you think that you have full knowledge regarding media used for online education (like joining, recording, mute-unmute, leave etc.)	18 (7.3)	23 (9.3)	48 (19.4)	57 (23)	102 (41.1)
17. Do you think that online classes interfere with your daily routine?	32 (12.9)	44 (17.7)	42 (16.9)	57 (23)	73 (29.4)

18. Do you think that messages are interrupted in between online classes?	27 (10.9)	28 (11.3)	46 (18.5)	68 (27.4)	79 (31.9)
19. Do you think that you are facing any difficulty in online class because of electricity problem?	43 (17.3)	37 (14.9)	33 (13.3)	46 (18.5)	89(35.9)
20. Do you feel that your siblings are interrupted during your online classes?	45 (18.1)	33 (13.3)	42 (16.9)	48(19.4)	80 (32.3)
21. Have you ever faced a problem in lack of concentration during online learning?	13 (5.2)	29 (11.7)	31 (12.5)	86 (34.7)	89 (35.9)
22. Do you think that lack of discussion in e-learning imparts less knowledge to students?	9 (3.6)	21 (8.5)	39 (15.7)	64 (25.8)	115 (46.4)
23. Do you think that there were lack of interaction between teacher and students during classes?	16 (6.5)	14 (5.6)	32 (12.9)	65 (26.2)	121 (48.8)
24. Do you feel that online classes had put more burdens on to you?	31 (12.5)	27 (10.9)	51 (20.6)	56 (22.6)	83 (33.5)
25. Do you feel that e-learning has an impact on your sleeping pattern?	41(16.5)	49 (19.8)	57 (23)	43 (17.3)	58 (23.4)
26. Do you think that e-learning is effective and has an impact over your education or daily learning?	14 (5.6)	30(12.1)	82 (33.1)	70 (28.2)	52 (21)
27. Do you think that prolong hours of online classes caused mental tiredness?	13 (5.2)	10 (4)	30 (12.1)	71 (28.6)	124 (50)
28. Do you think that long term use of screen caused eye straining?	6 (2.4)	8 (3.2)	21 (8.5)	38(15.3)	175 (70.6)
29. Do you feel that long term use of mobile phone had any impact on your health?	5 (2)	10 (4)	17 (6.9)	69 (27.8)	147 (59.3)
30. Do you think that Lack of clear explanation has impact on your study?	8 (3.2)	9 (3.6)	35 (14.1)	55 (22.2)	141 (56.9)

Table -3 shows the impact of students towards online classes. More than half of the students (70.6%) strongly agreed to "long term use of screen caused eye straining." Almost (37.9%) agreed to "difficulty with the use pattern of learning." Almost (33.1%) neutral to "E- learning is effective and has an impact over education or daily learning" Almost (24.2%) disagreed to "40 min of online classes were effective for learning process" Almost (35.5%) strongly disagreed to "online learning is better than traditional learning".

Table-4 overall scoring, mean, median & SD of online classes during covid-19 pandemic among nursing students. (n=248)

Variable	Possible Score	Mean	SD	Median	Minimum Score	Maximum Score
Overall Score	30 - 150	103.7	12.37	104	63	146

Table-4 reveals that the possible score was 30-150 which could be obtained by the respondents. Out of the full score, the mean score obtained by the respondents was 103.7 and standard deviation was 12.37. The median score was 104 with minimum impact score of 63 and maximum score of 146.

Table-5 Level of impact of online classes during covid-19 pandemic among nursing students. (n=248)

IMPACT	NUMBERS	PERCENTAGE
POSITIVE	116	46.77%
NEGATIVE	132	53.22%

Table-5 reveals that the overall level of impact of students towards online classes. More than half of the students (53.22%) had negative impact towards online classes and (46.77%) had positive impact towards online classes.

Table-6 Association between impacts of online classes during covid-19 pandemic among nursing students with their demographic variables.

(n=248)

DEMOGRAPHIC VARIABLE		POSITIVE	NEGATIVE	df	CHI SQUARE	p VALUE
		Frequency	Frequency			
MARITAL STATUS	Single	112	128	1	0.035	0.853
	Married	4	4			
EDUCATION LEVEL	Intermediate	49	55	3	0.319	0.956
	Graduate	64	72			
	Post graduation	1	2			
	Diploma	2	3			
RELIGION	Hindu	109	125	3	0.403	0.939
	Muslim	3	4			
	Christian	3	2			
	Other	1	1			
COURSE	GNM	33	34	1	0.227	0.634
	B.sc Nursing	83	98			
CURRENT PLACE OF RESIDENCE	Urban	67	78	2	0.2	0.905
	Semi Urban	20	20			
	Rural	29	34			
TYPE OF FAMILY	Joint	39	32	1	2.658	0.103
	Nuclear	77	100			
SOURCE OF INFORMATION REGARDING ONLINE LEARNING	Internet	110	123	2	1.499	0.473
	Television	1	4			
	Peer group	5	5			
	Others	0	0			
PREVIOUS E- LEARNING EXPERIENCE	Yes	80	83	1	1.015	0.314
	No	36	49			

Table-6 shows that there is no statistically significant association of impact of online learning with selected demographic variables.

DISCUSSION

The sudden closure of all the educational institutions due to the pandemic caused the educational sector to seek alternative practices to limit the interference on carrying out the regular teaching learning activities caused by the lockdown. The better way to deal with the situation came forward with the approach of practicing online learning by academic institutions. The medical education sector also adapted similar approach, whereby the students were compelled to continue their education using online learning approaches.^v This study explores nursing students' impact regarding online-learning based on their experience with online learning activities during the pandemic. This study was conducted among bachelor level nursing students, so it consisted only of female students with a mean age of 20.91 years which is similar to the study conducted in Indonesia among medical students

The present study assessed the impact of **online learning during covid-19 pandemic among nursing students**. The study found that more than half of the students (53.22%) had negative impact and (46.77%) had positive impact towards online classes.

This finding is supported by a study conducted among Pakistani medical students which showed 77.4% students had negative perception about e-learning. In this study, more than one third of students (48.1%) disagreed that online learning is better than traditional learning. About two third of the students agreed that face to face contact with teacher is necessary to learn (67.6%) and learning environment is better in college than at home (63.9%). These data suggest that nursing students prefer traditional in-class methods to online learning.

CONCLUSION

Online learning method is a solution taken by higher education during the Covid-19 outbreak. Based on the survey result, almost half of the respondents had negative perception towards online learning. However, majority felt that online classes should be continued during this pandemic. The nursing educational system should use the programs for improving online learning that is more user-friendly and technically sound where virtual experiences of practical sessions can also be carried out effectively and efficiently. Online learning programs with proper strategies needs to be developed based on existing evidence to enhance the nursing students' clinical skills, knowledge and attitudes for the preparedness of the emergency like COVID-19 in the near future. The blended approach of teaching and learning in nursing fraternity can create new opportunities in nursing field in the coming days.

REFERENCE

1. Amit Kumar Arora, R. Srinivasan, Impact of Pandemic COVID-19 on the Teaching – Learning Process: A Study of Higher Education Teachers, Prabandan indian journal of management, [Volume 13, Issue 4, April 2020](#).
2. The COVID-19 pandemic has changed education forever. This is how, World Economic Forum, 29 Apr 2020
3. Sahu P, Closure of Universities Due to Coronavirus Disease 2019 (COVID-19): Impact on Education and Mental Health of Students and Academic Staff, PMC ,Apr 2020
4. Ali WGM (2016) Nursing Students' Readiness for e-Learning Experience. Gynecol Obstet (Sunnyvale) 6: 388. doi:10.4172/2161-0932.1000388
5. Thapa P, Bhandari SL, Pathak S (2021) Nursing students' attitude on the practice of e-learning: A cross-sectional survey amid COVID-19 in Nepal. PLoS ONE 16(6): e0253651. <https://doi.org/10.1371/journal.pone.0253651>