

# Problems and Compliance on Online Education among Nursing Students

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## Abstract

A descriptive study was conducted to assess the problems and compliance on online education among nursing students, KIMS nursing college Thiruvananthapuram. The objectives of the study were to find out the problems of online education, to assess the compliance of online education, to find out the association between problems and compliance of online education and selected sociopersonal variables. The sample size consists of 110 nursing students. The study used a purposive sampling technique through a structured questionnaire consisting of 3 sections; section A consist of Sociopersonal variable such as age, year of study, gender, monthly income, area of residence, and gadgets used for online learning; section B is a structured questionnaire of 10 multiple choice questions on problems of online education; Section C consists of 15 “Yes /No” question on compliance of online education. Data was collected and analysed using descriptive and inferential statistics. The selected socio-personal variables in the study include age, gender, year of study, income, area of residence, gadgets used for learning.

The result show that 58.181% participants faced network, electricity, recharge issues, 56.36% spend 5-7 hours for an average online section, 57.27% felt that online education was good, 70% partially completed the class syllabus, 64.545% reported too much content, 49.090% preferred whatsapp,.30.90% felt a sense of isolation, 53.62% had partially affordable economic burden,76.3% experienced headache, eye strain and backache,52.73% doesn't get enough time to engage in physical activity and about 40.90 % had average compliance, 33.63% good and 25.45% had poor compliance.

The study showed that there is a significant association between compliance on online education and age ( $P < 0.05$ ). There is no significant association between compliance on online education and gender, year of study, income, area of residence and gadget used.

**Key words:** *Problems, Compliance, Nursing students, online education*

## Introduction

Online Education has grown significantly over the last decade .Online learning is the latest trend of educational delivery for gaining knowledge and degree.<sup>1</sup>Online learning is defined as “Learning experiences in synchronous or asynchronous environments using different devices.(example Mobile phones ,laptops etc.) With internet access .In these Environment, students can be anywhere to learn

an Interact with instructors and other students. (Singh and Thurman, 2019).<sup>2</sup>

The evolution of Internet has provided an opportunity for offering online learning. Medical and nursing education seek out appropriate actions to conduct effective e- learning via e-lectures, e-tutorials, e-care base learning, etc., so that continued education can be provided without getting much affected during COVID-19 pandemic. The aim of the study is to

understand about the attitudes of nursing students on online education and to know whether they are willing to change their learning methodology from the traditional learning methods. The sudden change to this new normal way of learning has its own positives and negatives. When the online learning has opened many new doors and opportunities, it has disrupted the peer learning and social interaction among the students. Spending too much time in front of mobile phones, laptops and tabs will surely result in physiological issues among the students.<sup>3</sup>

### **Background of the study**

Online Education is the acquisition of knowledge which takes place through electronic media and technologies. Online platforms for teaching-learning includes Google classes, zoom, recorded classes, Whats-app.<sup>4</sup>

Online learning is using the internet and it is associated gadgets for instructional functions without geographical restrictions, particularly after the outbreak of the Coronavirus pandemic which brought about a disruption of training with inside the study room around the world. While the arrival of COVID 19 has required a nurse faculty to be innovative, bendy nimble and agile for example teachers have needed to pass in-individual classes online, conceptualize and after opportunity scientific enjoy and redefine. The study aimed to assess the problems and compliance of nursing students on online learning experience during the COVID 19 period. Virtual fact and augmented study rooms nowadays have to make greater interplay among teachers and college students as near actual study rooms like enjoy as possible. The assignment but is minimized through using many e-coaching and re-mastering apps. On line, mastering is a transient alternative useful resource to meet the challenges of the COVID 19. Nursing education has been using internet related data source for research purposes, but now, this has become an essential element of basic

professional training.<sup>5</sup>

- A Descriptive study on “students perception and preference for online education in India during COVID 19 Pandemic” .Among 307 graduate assessed using structured and unstructured preliminary questionnaire. Various devices preferred by Respondents for attending online classes were smartphones (57.98%), laptop (35.83%), tablet (4.89%) and desktop (.65%). Mobile data pack was source of internet for 82% Respondent. 62% said that whatsapp was the best way to communicate class update .57.52% indicates lack of connectivity as a major hindrance in online learning. The second and third constraints were data limit (55.95%) and data speed (55.50%).T.Muthuprasad. <sup>7</sup>
- The university of Hyderabad carried out an in-house survey with about 2500 students on issues related to online learning. Though 90% of the respondents have a mobile phone, about 63% of them could only access online classes in frequently or not at all. Interestingly, among the concerns raised about online Instructions, 40% reported unreliable connectivity as being a major deterrent while 30% cited the cost of data. Significantly 10% reported uncertain electricity supply as a concern. <sup>8</sup>

### **Need and Significance**

Even before COVID-19, there was already high growth and adoption in education technology. There is an unplanned and rapid move to online learning – with no training, insufficient bandwidth and little preparation which may result in a poor user experience that is uncondusive to sustained growth in rendering quality education in nursing profession.

- “A Descriptive study on “Problem faced by students through electronic media “ was

conducted by Surakash Subedi , Suvash Nayaju , Sweta Subedi, Sanjeev Kuar Shah and Jennifer Mathias Shah at Nepal .The study was mainly focused to the nursing teachers and students of Nepal. The sample size was 1116 respondents. Primary quantitative data was obtained by self -administered questionnaire through online survey method. The results were, almost half of the teachers (42.3%) got disturbed for their online class because of electricity problems, 48.1% because of internet problems. More than half of the students (63.2%) were affected because of electricity and 63.6% internet problems, only 64.3% students had internet access for their online classes and it conclude that e- learning is a good opportunity to continue education but in the context of developing countries like Nepal it is not fully effective unless the factors affecting are taken into account.<sup>10</sup>

- A multinational study, “Students perception on online education” among 223 undergraduate students of Portuguese, UAE, Ukraine Collected through online survey with 10 closed questions about undergraduate Students perception and receptivity towards enrolling in online education. Survey result were 27.27% Portugal, 28.57% Ukraine, 32.63% UAE students have difficulty in contacting the instructors. 30.91% Portugal, 21.43% Ukraine, 36.84% UAE have difficulty in interacting with the peers. 30.91% Portugal, 65.71% Ukraine, 41.05% UAE students have difficulty to stay motivated. 32.73% Portugal, 24.29% Ukraine, 47.37% UAE students have difficulty getting immediate feedback. 52.73% Portugal, 14.29% Ukraine, 55.79% UAE students prefer face to face classes.<sup>11</sup>
- Since this is a new concept ,it is significant

to assess the problems of online education and determine their adaptability to this new system so that the knowledge and clinical skills of nursing students will be enhanced by improving the efficiency and effectiveness of educational interventions in the phase of social and scientific challenges .<sup>14</sup>

## **Statement of the Problem**

A study to assess the problems and compliance on online education among nursing students in a selected nursing college, Trivandrum.

### **Objectives**

- To find out the problems of online education.
- To assess the compliance of online education.
- To find out the association between compliance of online education and selected socio-personal variables.

### **Hypotheses**

H1: There is a Significant association between problems and compliance on online education and related socio -personal variable Such as Age, Gender, Year of study, Monthly income, Area of residence, Gadgets used for Learning.

### **Assumptions**

- Students are new to online education.
- Online learning is very easy for everyone.
- Online learning offers students the accessibility of time and Place in education compared to offline classes.

## **Methodology**

### **Research approach**

Quantitative research approach

## Research design

Non experimental descriptive study design

## Setting of the study

KIMS College of Nursing, Trivandrum

Population

- **Target population :** Nursing students
- **Accessible population :** Second year and third year Nursing Students of KIMS College of Nursing

**Sample size:** 110 nursing students

**Sampling technique:** Purposive sampling techniques.

## Criteria for sampling selection

Inclusion Criteria

1. Those who are able to access Internet Facilities
2. Those who are able to understand English Language

Exclusion criteria

1. Students who are not willing to participate in the study.

## Research Tool

The research Tool used for this study is Structured Questionnaire.

## Data collection procedure

Data collection conducted from 15th March to 16th March after obtaining permission and ethical clearance from the Institution Review Board and Head of Department of KIMS College of Nursing .Informed Consent from each participants obtained .The Questions given to

the Participants through Google form after the submission of Informed Consent.

## Techniques for Data Analysis

Data analysis planned based on the objectives of the study. After collection of the data, it is organized tabulated and summarized by a master data sheet and by using descriptive and inferential statistics using the latest SPSS version with the help of a statistician. Descriptive statistics used for percentage and frequency distribution .Inferential Statistics using Chi-Square Test.

Data Analysis and Interpretation of data:

Organization of study findings

**Section A:** Distribution of subjects based on socio personal variables.

**Section B:** Distribution of subjects based on problems of online education.

**Section C:** Distribution of subjects based on association between compliance and selected socio personal variables.

SECTION A: Distribution of subjects based on socio personal variables

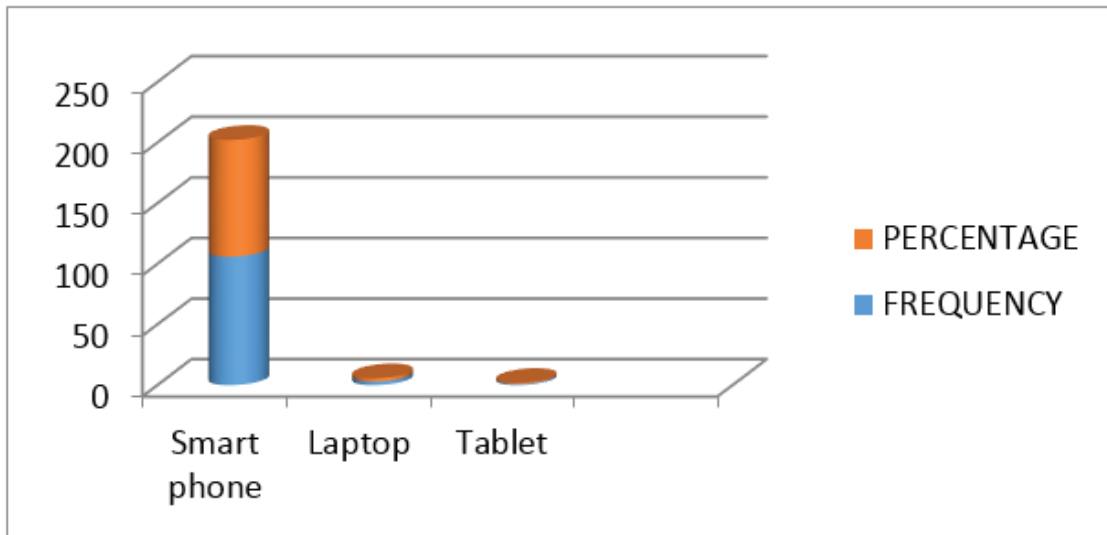
- In age group, majority of samples belongs to 20 – 21 years ( 68.18%), 17-19 years (29%) and the least belongs to age group of 22-24 years (2.72%)
- In gender, majority of samples belong to female group (98.18%) and least belongs to male group (1.81%)
- In year of study majority of samples belongs to third year BSc Nursing students (58.18%) and least belongs to second year BSc Nursing students (41.81%)

- In income majority of samples have monthly income of >20,000 ,37.27% have monthly income of Rs 5,000-10,000 , 28.18% have monthly income of less than 5,000 , 18.18% have monthly income of Rs 10,000- 20,000 and 16.36% have monthly income of above

Rs 20000

- In area of residence, majority of samples belongs to rural(51.81%) and least of the samples belongs in urban area (48.18%)

**GADGETS**



**FIGURE 1: The cylindrical diagram showing frequency and percentage distribution of subjects according to gadget used for online education**

**SECTION B: Distribution of subjects based on problems of online education**

**Table: 1** n=110

Variables	Frequency (f)	Percentage (%)
<b>1. Time duration</b>		
1-3 hrs	5	4.545
3-5 hrs	28	25.45
5-7hrs	62	56.36
7-10hrs	15	13.63
<b>2. Problem faced</b>		
Network issues	44	40
Electricity issues	1	0.90
Recharge issues	1	0.90
All of the above	64	58.18

Most of the students (56.36%) spend their time for about 5-7 hrs and (58.18%) faced the problems like network issues, electricity issues and recharge issues during online classes.

Variables	frequency (f)	percentage (%)
<b>3. Overall about online education</b>		
Excellent	1	0.90
Good	63	57.27
Below Average	33	30
Poor	13	11.81
<b>4. Able to complete syllabus</b>		
Completed	15	13.63
Partially completed	77	70
Not able to complete	18	16.36
<b>.5. About class syllabus</b>		
Satisfied	35	31.81
Too much content	71	64.54
Less content	4	3.63

57.27% of students felt good about online education.70% students partially completed the syllabus.64.54%students had too much content on online class.

Variables	frequency(f)	percentage(%)
<b>6. Most preferred platform</b>		
Whatsapp	54	49.09
Google classroom	30	27.27
Zoom	5	4.45
Moodle	0	0
All of the above	21	19
<b>7. Sense of Isolation</b>		
No	32	29.09
Yes	34	30.90
Sometimes	44	40
<b>8. Economic Burden</b>		
Affordable	38	34.54
Partially affordable	59	53.62
Not affordable	13	11.81

49.09% students preferred whatsapp as their platform for online class .44% students felt sense of isolation and 53.62% students were partially affordable in their economic status.

Variables	frequency (f)	percentage (%)
<b>9. Health Problem</b>		
Headache	7	6.36
Eye strain	18	16.3
Backache	1	0.9
All of the above	84	76.3
<b>10. Time to engage in physical activities</b>		
Most often	4	3.63
Sometimes	48	43.63
Not at all	58	52.73

76.3% students faced the health problems like headache, eye strain and backache.52.73% students not get enough time to engage in physical activities.

#### SECTION C: Distribution of subjects based on compliance of online education.

**Table 2: shows distribution of subjects based on compliance of online education.**

**n=110**

Compliance	frequency (f)	percentage (%)
Good	37	33.64
Average	45	40.91
Poor	28	25.45

**Inference:** Among 110 samples 40.91% had average compliance, 33.64% had good compliance and 25.45 % had poor compliance.

#### SECTION D: Association between compliance on online education and selected socio personal variables

**Table 3: Chi square test showing association between compliance on online education and age.**  
**n=110**

Variables (Age)	Good Frequency	Average Frequency	Poor Frequency	df	calculated chi square
17-19 years	9	16	7	4	X <sup>2</sup> =9.5865
20-21 years	27	29	19		
22-24 years	1	0	2		

## **SECTION D: Association between compliance on online education and selected socio personal variables**

Table 4 shows that the computed Chi square value (9.586) is more than table value (9.49) at the df 4. The test is statistically significant ( $P < 0.05$ ). Hence there is significant association between compliance on online education and age.

### **Results**

The study results are organized under following headings:

#### **Section A: Socio personal variables**

- In age group, majority of samples belongs to 20 – 21 years ( 68.18%), 17-19 years (29%) and the least belongs to age group of 22-24 years (2.72%)
- In gender, majority of samples belong to female group (98.18%) and least belongs to male group (1.81%)
- In year of study majority of samples belongs to third year BSc Nursing students (58.18%) and least belongs to second year BSc Nursing students (41.81%)
- In income majority of samples have monthly income of  $>20,000$  ,37.27% have monthly income of Rs 5,000-10,000 , 28.18% have monthly income of less than 5,000 , 18.18% have monthly income of Rs 10,000- 20,000 and 16.36% have monthly income of above Rs 20000
- In area of residence, majority of samples belongs to rural(51.81%) and least of the samples belongs in urban area (48.18%)
- In gadgets used for learning, the majority of samples belong to smartphone(96.3%),2.72%

belongs to laptop and least samples belongs to tablet(0.90%)

#### **Section B: Distribution of subjects based on the problems of online education**

The result show that 58.181% participants faced network, electricity, recharge issues. 56.36% participants spend 5-7 hours for an average online section. 57.27% participants felt that online education was good. 70% participants were partially completed the class syllabus. 64.545% participants reported too much content. 49.090% preferred WhatsApp as the platform for online education. 30.90% felt a sense of isolation. 53.62% had partially affordable economic burden. 76.3% participants experienced headache, eye strain and backache. 52.73% doesn't get enough time to engage in physical activity during online classes.

#### **Section C: Distribution of subjects based on compliance on online education**

Among 110 samples, 37 participants (33.64%) had good compliance, 45 participants(40.91%) had average compliance and 28 participants(25.45%) had poor compliance on online education.

#### **Section D: Association between compliance on online education and selected socio personal variables.**

The selected socio personal variables in the study include age , year of study , gender , income , area of residence and gadgets used for online education . There is a significant association ( $P < 0.05$ ) between compliance on online education and age. There is no significant association ( $P > 0.05$ ) between compliance on online education and socio-personal variables such as year of study, gender, income, area of residence and gadgets used for online education.

### **Discussion**

The present study was taken up in an effort

to assess the problems and compliance of online education among nursing students Trivandrum.

**Objectives were:**

1. To find out the problems of online education.
2. To assess the compliance of online education.
3. To find out the association between compliance of online education and selected socio personal variable

- The result showed that among 110 samples 29% belongs to age group 17-19 years 68.18% belongs to 20-21 years, 2.72% belongs to 22-24 years. With regard to gender 98.18% are females, 1.81% males. With regard to year of study, 58.18% belongs to 3<sup>rd</sup> year , 41.81% were 2<sup>nd</sup> years. With regard to income 37.27% had monthly income between 5000-10000, 28.18% had monthly income <5000,18.18% had 10000-20000, 16.36% had monthly income >20000. With regard to area of residence 51.81% sample living in rural area,48.18% living in urban area. With regard to gadget used for learning 96.3% samples used smartphones ,2.72% used laptops , 0.90% used tablets. The selected socio-personal variables in the study include age, gender, year of study, income, area of residence, gadgets used for learning. The result show that 58.181% participants faced network, electricity, recharge issues. 56.36% participant spends 5-7 hours for an average online section. 57.27% participants felts that online education was good. 70% participants were partially completed the class syllabus. 64.545% participants reported too much content. 49.090% preferred whatsapp as the platform for online education. 30.90% felt a sense of isolation. 53.62% had partially affordable economic burden.76.3%

participants experienced headache, eye strain and backache.52.73% doesn't get enough time to engage in physical activity during online classes. About 40.90 % of the participants had average compliance, 33.63% had good compliance and 25.45% had poor compliance. The study showed that there is a significant association between compliance on online education and age ( $P<0.05$ ). There is no significant association between compliance on online education and gender, year of study, income, area of residence and gadget used.

- This study is in congruent with a study conducted in India by T.Muthuprasad. A Descriptive study on “students perception and preference for online education in India during COVID 19 Pandemic” .Among 307 graduate assessed using structured and unstructured preliminary questionnaire. Various devices preferred by Respondents for attending online classes were smartphones (57.98%), laptop (35.83%), tablet (4.89%) and desktop (.65%). Mobile data pack was source of internet for 82% Respondent. 62% said that whatsapp was the best way to communicate class update .57.52% indicates lack of connectivity as a major hindrance in online learning. The second and third constraints were data limit (55.95%) and data speed (55.50%).T.Muthuprasad. <sup>7</sup>
- “A Descriptive study on “Problem faced by students through electronic media “ was conducted by Surakash Subedi , Suvash Nayaju , Sweta Subedi, Sanjeev Kuar Shah and Jennifer Mathias Shah at Nepal .The study was mainly focused to the nursing teachers and students of Nepal. The sample size was 1116 respondents. Primary quantitative data

was obtained by self-administered questionnaire through online survey method. The results were, almost half of the teachers (42.3%) got disturbed for their online class because of electricity problems, 48.1% because of internet problems. More than half of the students (63.2%) were affected because of electricity and 63.6% internet problems, only 64.3% students had internet access for their online classes and it conclude that e-learning is a good opportunity to continue education but in the context of developing countries like Nepal it is not fully effective unless the factors affecting are taken into account.<sup>10</sup>

## Summary

Online education is electronically supported learning that reliance on the internet for teacher–student interaction and the distribution of class materials.

The present study was done to assess problems and compliance on online education among 2<sup>nd</sup> year and 3<sup>rd</sup> year B sc nursing students in KIMS College of nursing, Trivandrum. The study used quantitative research approach and non-experimental descriptive research design. The study used a non-probability purposive sampling technique. The study excluded students who are not willing to participate. The tool consists of structured questionnaire to assess socio-personal variables, problems and compliance on online education. The data collection was done from 15/3/21-16/3/21. The data was analyzed using descriptive and inferential statistics including chi-square technique. Among the 110 samples 33.63% participants have good compliance, 40.90% participants have average compliance, and 25.45% participants have poor compliance. The result showed that among 110 samples

29% belongs to age group 17-19 years 68.18% belongs to 20-21 years, 2.72% belongs to 22-24 years. With regard to gender 98.18% are females, 1.81% males. With regard to year of study, 58.18% belongs to 3<sup>rd</sup> year, 41.81% were 2<sup>nd</sup> years. With regard to income 37.27% had monthly income between 5000-10000, 28.18% had monthly income <5000, 18.18% had 10000-20000, 16.36% had monthly income >20000. With regard to area of residence 51.81% sample living in rural area, 48.18% living in urban area. With regard to gadget used for learning 96.3% samples used smartphones, 2.72% used laptops, 0.90% used tablets. The selected socio-personal variables in the study include age, gender, year of study, income, area of residence, gadgets used for learning. In the age  $X^2=9.586$ , year of study  $X^2=0.2$ , gender  $X^2=2.73$ , income  $X^2=10.99$ , area of residence  $X^2=3.98$ , gadgets used for learning  $X^2=4.587$ . There is significant association between compliance on online education and age. There is no significant association between compliance on online education and socio-personal variables such as year of study, gender, income, area of residence, gadgets used for learning.

## Conclusion

The study focused to assess the problems and compliance on online education among nursing students. The study concluded that majority of the sample have average compliance on online education. The also suggested that there is significant association between compliance on online education and age. There is no significant association between compliance on online education and socio-personal variables such as year of study, gender, income, area of residence, gadgets used for learning.

## Nursing implication

Nursing Implication The study implication

for nursing practice , nursing education , nursing administration and nursing research.

### **Nursing practice**

- Nurses can implement online education to improve their in-service and continuing education.
- Increasing numbers of nurses and nursing student live at distances from educational institutions providing basic or continuing nursing education.

### **Nursing Administration**

- Nurse administrators can conduct workshops to ensure more information on online education.
- Nurse administrators can make use of different modes to conduct online education.
- Nurses must utilize average resources including budget to facilitate teaching on various aspects of online education among nurses.

### **Nursing Education**

- Nurse educators make use of online methods for efficient e-learning during pandemic and Calamities.
- Nurse educators got a different experiences in teaching, examinations through online education , enabling them to get more skills on technologies.
- Nurse educators provide better student outcomes, including better scores on the certification and credentials testing and increased preparedness for real -world practice by understanding the problems.

### **Nursing Research**

- To find out the indepth aspects of online

education.

- Efficient input into nursing research helps to identify different aspects of online education.

- The findings of the study serve as a scientific basis for the professionals and students.

### **Recommendations**

- A similar study can be conducted through direct enquiry rather than using Google forms.
- An observational study can be conducted for a definite period.
- A similar study can be conducted for another professionals and school level students.

**Conflict of Interest:** None

**Source of Funding:** This study was self financed

**Ethical Clearance:** Taken from College Committee.

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