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STUDENTS' PERCEPTION ON ONLINE EDUCATION DURING COVID-19 PANDEMIC

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ABSTRACT

COVID-19 pandemic is widely affected all world. The education system was too badly affected. A descriptive survey was conducted among 208 conveniently selected samples to explore the students' perception on online education. The average age of samples were 20 years. More samples (50.5%) were studying 4 to 6 hours a day. Midday was the most (59.1%) acceptable time for the classes. Majority of samples used mobile (94.2%) for accessing the classes. Self-paced learning and metacognition were the more rated advantages of online classes. The highest rated barrier for online classes was network related issues. Many students reported health issues after attending online classes and most important health concern was headache (62). This study put forth the need of having capacity building sessions for faculty, developing infrastructure and open source for computerized learning for future online sessions.

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INTRODUCTION

COVID-19 pandemic is the most crucial global health calamity of the century and the greatest challenge that humankind faced after 2nd world war. Globally, there have been 9,653,048 confirmed cases of COVID-19, including 491,128 deaths, reported (1). This outbreak created a crisis in all paths of life all around the world in everyday life. The name COVID -19 stands for. CO - Corona, VI - virus D- disease and 19 is the year of its first occurrence. It affected the social, cultural and political life. Education of children is another area which is equally affected. More than 185 countries have now closed schools worldwide, impacting nearly 90 % of students globally. This is unprecedented; the world has never seen these many children out of school at the same time. Around the world more than 1.38 billion young adults losing their valuable days in the school (2,3). The condition of lockdown and the strict necessity of maintain social distancing forced the educational institutions to remain closed for long time. Any kind of activities in an educational institution will have the gathering of students, teachers, supporting staff and parents.

This will make the scenario worse. It is quite normal that the parents and students to become sad, angry, worried, confused and scared for the non-functioning of schools. In this situation technology has come to the rescue of teaching learning process. The students all around the world started learning online and started to become positive in the midst of uncertainty (4). As the proverb says, necessity is the mother of invention, the educational institutions started exploring and utilizing the various online platforms for the transmission of knowledge. All educational institutions - big or small, urban or rural, public or private, professional, technical or arts and science started experimenting the available technologies to reach the lessons to their learners through various online platforms. The spread of COVID-19 leads to the closure of higher education institutions too. Students are force to attend online learning sessions. The experts in the field named online education as 'the new normal' mode because of its usefulness, ease- to - use and popularity. As the platforms brings a drastic change in education system the e- learning allows teachers and students keep a safe distance hence it is very well accepted and appreciated. The various researches around the world shows online learning increases the retention of information and it takes less time to impart knowledge. This study is exploring the students' perception on online education in

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Kerala during the pandemic and lockdown period. The main objectives of the study were to identify the advantage, find the barriers and also explore the positive change happened among the students. The researchers were curious to explore the student perception on online teaching in Kerala. Hence the study was conceptualized.

MATERIALS AND METHODS

Materials: A descriptive survey was conducted among 208 professional students in Kerala state. A questionnaire consist of 15 items were constructed by the researchers. The questionnaire subjected for content validity by three experts. There were few suggestions on change of words and which was incorporated and the final tool was constructed. Seven items were of baseline data and reaming items were about online teaching, the mode, advantage, barriers identified and also the positive experience of the subjects during the lockdown time. The respondents were requested to provide their own view on each of the items. More than one opinion also was permitted. The proposal was approved by the institutional research committee (IRC-1//20/05/2020). The pretesting of the tool was done with five students.

The instrument was converted as Google forms and it was uploaded for the main data collection. Students were assured the confidentiality of the information. Samples were selected using convenient sampling. The Google forms were send to 234 samples and 208 samples responded. The data collection period was from 25th to 30th of May 2020. Master data sheet was prepared using Excel later SPSS 20 was used for the analysis. Open ended items were recorded as it was and later the two researchers sat together and compiled the items and frequencies were calculated. The study included the students of one Nursing college, the students who were using online platform for their education and also it was a voluntary participation. The students who were not included in the regular academic system and whoever not using online platform for learning were excluded.

RESULTS

Table 1 shows the participants' age range between 18 years to 22 years with more subjects 54 (26%) belong to 20 years. The mean age of subjects were 20 years. Maximum 186 (89.4%) are females. The respondents' number were equal from both second year and third year 54 (26%). Majority 105 (50.5%) responded they spent 4 to 6 hours for learning in a day. Midday is the time preferred by more subjects 123 (59.1%). Class was accessed by mobile phones by 196 (94.2%). It was also important to note 11 (5.3%) of them did not respond to this item. Eighty two (39.4%) responded the online classes are effective. Figure 1 shows majority (88) of students prefer Whats App as the most effective online instruction mode. Self-paced learning is the most important advantage identified by 63 (30.1%) of samples. Metacognition or exposure to wide variety of knowledge 61 (29.3%) as another advantage. Many students identified online teaching as budget friendly. Table 3 shows the major difficulties experienced by students during the online sessions. More number of students 102 (49%) expressed network problem as a major issue.

Table 1. The baseline characteristics of the subjects

| N=208 | | |
|-------------------------------|-----|------|
| Variables | F | % |
| Age in years | | |
| 18 | 35 | 16.8 |
| 19 | 47 | 22.6 |
| 20 | 54 | 26.0 |
| 21 | 38 | 18.3 |
| 22 | 34 | 16.3 |
| Gender | | |
| Male | 22 | 10.6 |
| Female | 186 | 89.4 |
| Year of Study | | |
| First Year | 55 | 26.4 |
| Second Year | 54 | 26.0 |
| Third Year | 54 | 26.0 |
| Fourth Year | 45 | 21.6 |
| Learning Hours per Day | | |
| <3 Hrs | 81 | 38.9 |
| 4 to 6 | 105 | 50.5 |
| 7 to 8 | 16 | 7.7 |
| >8 Hrs | 6 | 2.9 |
| Time of the day | | |
| Early morning | 48 | 23.1 |
| Mid-day | 123 | 59.1 |
| Afternoon | 23 | 11.1 |
| Late evening | 14 | 6.7 |
| Class Access | | |
| Mobile | 196 | 94.2 |
| Laptop | 1 | 0.5 |
| No response | 11 | 5.3 |
| Effectiveness of online class | | |
| Very effective | 6 | 2.9 |
| Effective | 82 | 39.4 |
| Happy | 67 | 32.2 |
| Less effective | 42 | 20.2 |
| No response | 11 | 5.3 |

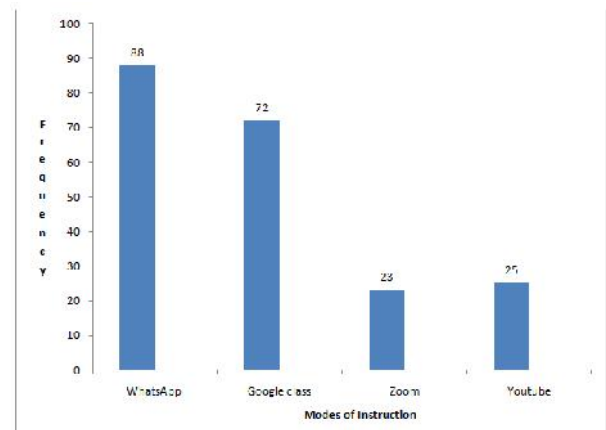


Figure 1. Most effective online instruction mode

Table 2. Advantages of Online Classes Experienced by Students

| Advantages | Frequency |
|-----------------------------------|-----------|
| Self-paced learning schedule | 63 |
| Metacognition | 61 |
| Productive learning | 35 |
| Audio & Video stimulates learning | 34 |
| More time with family | 31 |
| Technology skills improved | 30 |
| Budget friendly | 24 |
| Easily connected with teachers | 15 |
| Increased social media exposure | 10 |

Many students 62 (29.8%) expressed headache as a health issue because of the long-time use of mobile phones. In table 4 many of the participants (75) expressed they could spend quality time with their family.

Table 3. Barriers of Online Learning Experienced by Students

| Barriers Expressed | Frequency |
|--|-----------|
| Technology Related Issues | |
| Network issues | 102 |
| Poor quality of gadgets | 16 |
| Unavailability of own gadgets | 7 |
| Power supply interruption | 8 |
| Health Issues | |
| Headache | 62 |
| Eye Strain | 53 |
| Stress | 10 |
| Neck pain & Body pain | 8 |
| Missing of School | |
| Face to face interaction of teachers and peers | 15 |

Sufficient sleep was mentioned as a positive change by 56 subjects. Development of a more hygienic pattern (35) and development of an exercise pattern and healthy eating (20) is mentioned as positive change among the participants. Ten students worked as volunteers in Covid -19 Care activities.

Table 4. Positive Experience of Students during Lockdown

| Positive Experience | Frequency |
|--|-----------|
| Spending quality family time | 75 |
| Improved creativity | 70 |
| Technology skills developed | 69 |
| Gardening | 60 |
| Sufficient sleep | 56 |
| Reading & watching News | 50 |
| Painting& drawing | 40 |
| Arts & Crafts | 36 |
| Hygienic pattern developed | 35 |
| Exercise & healthy eating | 20 |
| Worked as volunteer in Covid -19 care activities | 10 |

DISCUSSION

Maximum 89.4% of respondents are females, a reason for this can be currently nursing education in Kerala is having higher enrolment by females. The institution where data was collected currently training 22 male students and all of them participated in the survey too. Midday is the time preferred by more subjects 123 (59.1%). A major reason for this preference can be the female students prefer doing some house hold activities in the morning hours before they do their academic work. Class were accessed by mobile phones by 196 (94.2%). It was also important to note 11 (5.3%) did not respond to this. This indirectly mentioning there is a difficulty in accessing the online classes by students. There is one (0.5%) mentioned he is using laptop for his learning.

There were 11 (5.3%) did not respond on the feeling about online classes. This number is similar to the number of students who did not respond to the question on how you access the online classes. Even though the number is less there are 42 (20.2%) of students responded online classes are less effective compare to regular lectures. Online teachings were effective was reported by 82 (39.4%). The similar finding of this was reported in another study (5). One of the report very clearly state if there is good support system the learning through online is very effective (6). The present study reported teachers were using Whats App, Google classroom, YouTube channel and Zoom as methods of teaching. This result is similar to the world finding where many institutions reports they are using Zoom, Microsoft Teams, Google, Hangouts, Whats App, MS Teams, and Go To Meeting (4).

In the initial sessions Zoom was keeping a time restriction of 40minutes per session and later they waved that restriction which is an advantage for teachers and students. Self-paced learning (Flexible learning schedule) is the most important advantage identified by 63 (30.1%) of samples. Students can access the class from any part of the world at any time of the day is reported by other reports too(4,5). This in future creates more tech- savvy teachers and students. There is an exposure to wide variety of knowledge was reported in this study. Similar finding was seen in a study conducted by Mooney & Bligh(7). Many students identified online teaching as budget friendly as they need not spend money for travel hostel or other extra expense. Audio and visual stimulation of learning is expressed as an advantage by 34 participants. Gujan reports extensive learning of a student occurs when it is integrated with activities which stimulates the systems of vision and hearing (6). More number of students 102 (49%) expressed network problem as a major difficulty experienced during online learning. This is almost near to 50% of samples hence it is to be considered as a major issue. Good internet access and technology really find it hard to participate in digital learning, this finding is similar around the globe. Same message is seen in many other reports from various parts of the world (4,5,8). Poor internet connectivity was identified as a barrier in live broadcasting of session in Canada was reported by Attardi & Rogers (9). Lack of good quality gadgets and own electronic gadgets expressed by few (16 & 7 respectively) students. Even though the number is less it is very much necessary to attend this issue. In Switzerland, Norway & Australia 95% students have their own computers to do their homework, in Indonesia it is 34% (8). Various health issues were reported by the subjects in this study. This is very similar to the report by Balaram (10). Stress reported by 10 students in this study. Increased digital use and remote learning affects the physical and mental health of students was reported (10). Students experienced a missing of school especially the face to face interaction with their teachers and peers few (15) expressed this as a difficulty. Even though it is a difficulty the previous articles reports it is very much necessary to have an online teaching schedule to establish a routine, especially when the children stay indoors (11).

Positive Change: Many students expressed there is some positive change happened to them which includes spending more quality time with family, lots of their hobbies could develop again like gardening, drawing painting, arts and crafts skill. It was also mentioned this lockdown helped them to improve their technology skill. Few important things mentioned by subjects include they developed a hygienic pattern, become more health conscious, also mentioned they become more concerned and attentive about their neighbors and relatives. Even though the number is less (10) it is very important that some of the students worked as volunteer for Covid care centers. It was mentioned by the participants that they could practice social distancing wearing masks and practicing hand washing and being a part of "Break the chain campaign". Very similar finding were seen in the reports of Scoo News Team (17 April 2020). In addition to this the present study and the report of Scoo News Team mention that students lack peer pressure during lockdown which actually increases their mental wellbeing (12). Fifty six subjects mentioned sufficient sleep as a positive change happened during lockdown period. The same finding is mentioned in the article on five positive effects of the lockdown on our health (13). The technology skills were improved was mentioned as a positive change by 9 subjects.

Agyeya in his article on positive sides of lockdown- digital inclusion clearly explains the improved interface and user experience of technology. His article reports teachers, learners, trainers, students and guardians are now accepting technology has an important role in education (14).

Recommendation

Capacity Building of Faculty: Up skilling of present faculty as tech –savvy is one of the major recommendations. The learning materials prepared by teachers must be more of student friendly. Teachers should come out of the monotonous audio clips to a mixture of audio/ video sessions. Also there must be break up warming up activities for students in the session. Online quizzes are also welcomed (4).

Uninterrupted bandwidth: There should be a provision of good internet connection with uninterrupted band width. This will encourage both teacher and student more comfortable on online teaching learning process (4,6).

Reducing the cultural resistance of teachers: teacher focused technological teaching is necessary to reduce the cultural resistance (15).

Development of infrastructure: Good audio visual labs and studio for recording and disseminating the class is also a suggestion for future teaching enhancement.

Value Adding: Reduce the screen time by increasing creative works. Tips to manage fatigue, stress and anxiety to be addressed (4, 15).

Open source for computerized learning: A single platform where all the students of the state or country can access the learning materials on a 24 x 7 basis. Learning materials delivered from experts available free on web for easy use at any time (6).

CONCLUSION

The transition from traditional face to face class room lectures to online learning is a challenge. Time constraints and demands from the consumer is constantly placing students and teachers on risk. Providing more personal and self –directed learning experience can increase the teaching and learning more effective. Online platform and teaching in professional education is relatively new concept, at the same time it is rapidly growing. It is very important to know how the students perceive the teaching in online. This will help to plan and implement more student friendly system for teaching.

CONFLICT OF INTEREST: The authors have no conflicts of interest regarding this investigation.

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