



## EVALUATION OF IMPACT OF ONLINE TEACHING DURING COVID PANDEMIC

## Pharmacology

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## ABSTRACT

Responses to the COVID-19 pandemic in medical education have varied from country to country, from closures of medical schools to online/distance learning approaches to abiding by country-specific measures such as social distancing to stop the spread of the disease. This is a new problem faced by the entire world and also Indian medical colleges. We planned a study to evaluate the impact of online teaching during the COVID pandemic, to assess the stress of students during online classes and to compare the efficiency of online vs traditional classroom teaching. Institutional ethical clearance was obtained and the study was done in the Department of Pharmacology, Government Sivagangai Medical College, Sivagangai with 100 II year MBBS students studying at Govt. Sivagangai Medical College, Sivagangai as study participants. All II year MBBS students were included, Questionnaires were framed through Google form and the student response to the online class session was assessed. Data collected was subjected to statistical analysis using SPSS version 21 we found 60 percent of students were attending online classes for more than 6 hours per day and 70 percent were willing to attend the classes for more than 6 hours per day. 70 percent used mobile phones to access online classes. 55 percent had no health issues while the remaining 45 percent had health issues in that 15 percent had a headache, 20 percentage had eye strain and 10 had both complaints out of the 45 students who said they had health-related issues. 60 percent reported that they had no stress in attending online classes, easy access to the mobiles and multitasking were the advantage faced by students during these online classes and the disadvantage is that bad network issues, gadget all time and self-motivation factors online classes were preferred by the students during the pandemic lockdown as it is the only source of their learning and it may be supplemented to normal offline classes in near future.

## KEYWORDS

Online classes, COVID pandemic, medical education, medical students

## 1. INTRODUCTION:

COVID-19 is classified as a pandemic and it spread to the entire world and affected every nation. The Coronavirus Disease 2019 (COVID-19) was first reported in Wuhan, Hubei Province, China. It is characterized by pneumonia-like symptoms. The virus spread exponentially, resulting in an outbreak throughout China and the world. Subsequently, on March 11, 2020, World Health Organization declared it as a worldwide pandemic. As of October 2, 2020, there were more than 34.3 million confirmed cases of COVID-19 globally and over 1,000,000 associated deaths in more than 180 countries. The spread of COVID-19 has led a majority of countries worldwide to implement emergency lockdown plans and apply social distancing strategies to limit the virus' spread; this has resulted in the interruption of school and university attendance. It has been estimated that there are 1, 5 billion learners affected by school and university closures. The responses to the COVID-19 pandemic/threat by medical schools around the world have varied, from total study cessation to a switch to online/distance learning. This sudden transition to distance learning approaches from on-campus learning is challenging for both faculty and students and has required much planning over a short period and without any clear guidelines. Medical schools' responses to these sudden lockdowns caused by COVID-19 are not well documented in the literature, and few works outline the response to epidemics like these, such as the Severe Acute Respiratory Syndrome (SARS) outbreak. In 2000, some Chinese medical schools responded to SARS by shifting to online problem-based tutorial sessions, while in 2003, Chinese medical schools cancelled formal bedside teaching and postponed their exams. The Canadian response to SARS included the suspension of clinical clerkships and electives for students for up to six weeks. Emergency closure of medical colleges and switching to an online mode of education was new to both the students and the teachers. We did this study to evaluate the impact of online teaching among the medical students.

## 2. AIMS &amp; OBJECTIVES

This study was planned to evaluate the impact of online teaching and its effectiveness in delivering the medical contents to the medical

students

## OBJECTIVES:

1. To evaluate the impact of online teaching during the COVID pandemic
2. To assess the stress of students during the online classes
3. To compare the efficiency of online vs traditional classroom teaching

## 3. METHODS &amp; MATERIALS

**Study centre:** Department of Pharmacology, Government Sivagangai Medical College

Institutional Ethical Committee clearance was obtained before starting the study

**Study participants:** II year MBBS students

**Study duration:** 2 months

**Study design:** a prospective questionnaire-based study

**Inclusion & exclusion criteria:** the consent was obtained from all the participants and if they were not willing to participate they were excluded

## METHODOLOGY:

Questionnaires were framed through Google form and the student response to the online class session were recorded. A questionnaire was designed to assess the effect of online teaching. The participants were explained the nature of the study, consent was obtained then only the questionnaire was given to them through google forms. The questionnaire was evaluated and standardized by peer groups and then only used for the study.

## STATISTICAL ANALYSIS:

Data collected will be subjected to suitable statistical analysis using SPSS v 21 software

## 4. RESULTS:

All the 100 students attended to questionnaire

## Figure No 1: Amount Of Hours Spent For Online Classes

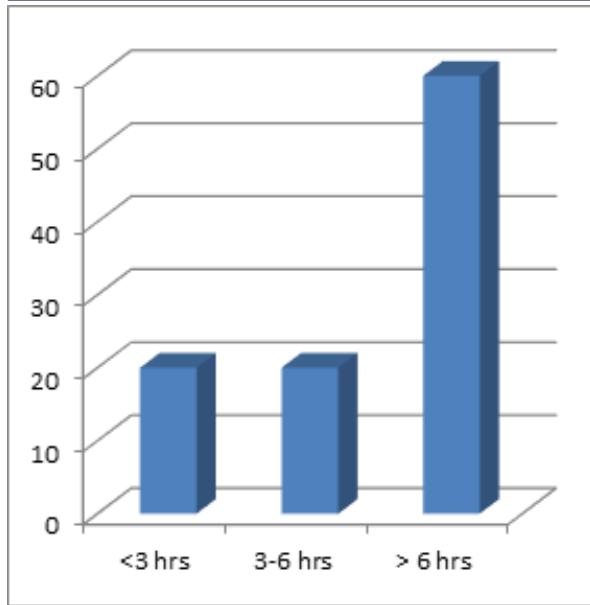


Figure 2: Preference Of Students Time Domain

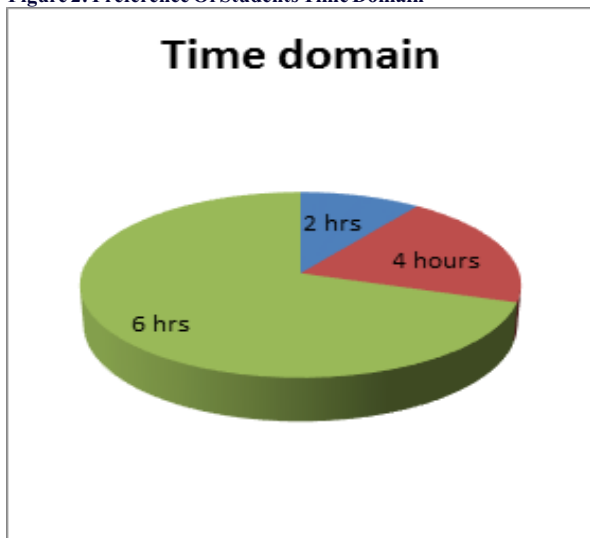


Figure No 3: Gadget Preference Of The Students

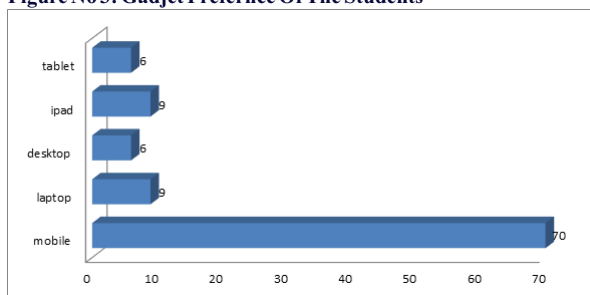


Figure No 6: Health Issues During Online Classes

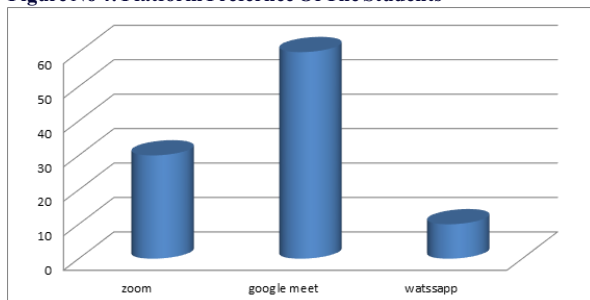


Figure No 4: Platform Preference Of The Students

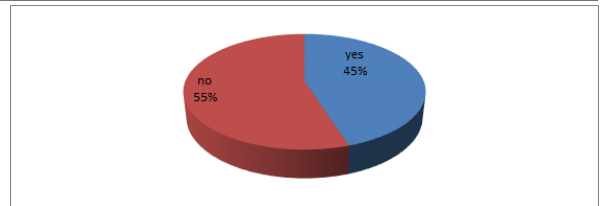


Figure No 7: Health Issues – Prevalance

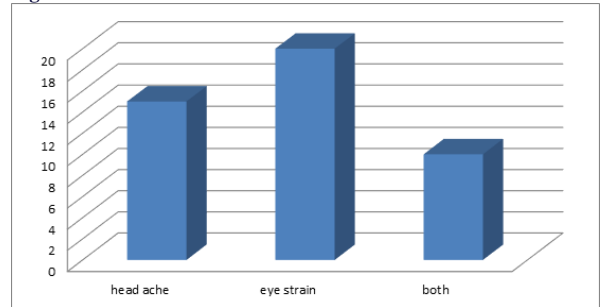


Figure No 8: Prevalance Of Stress Among Students

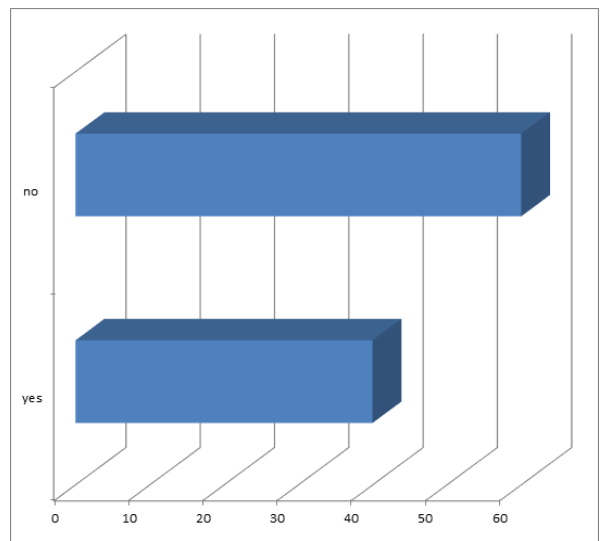


Figure No 9: Advantages Faced By Students

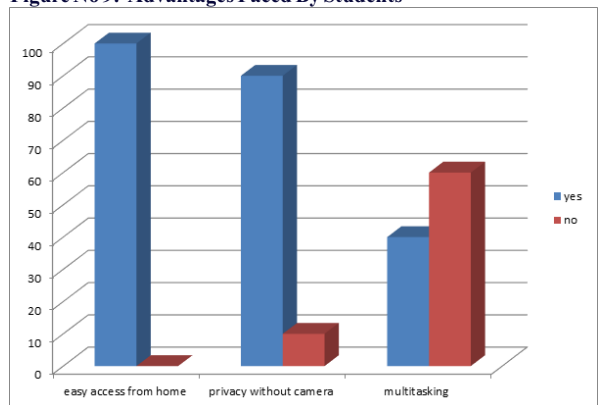
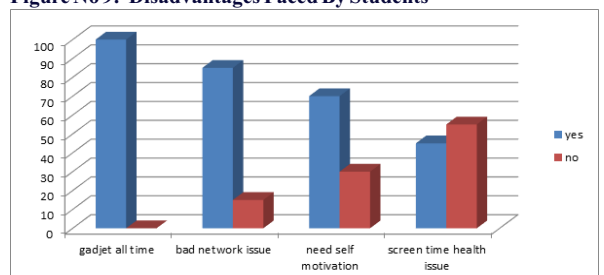
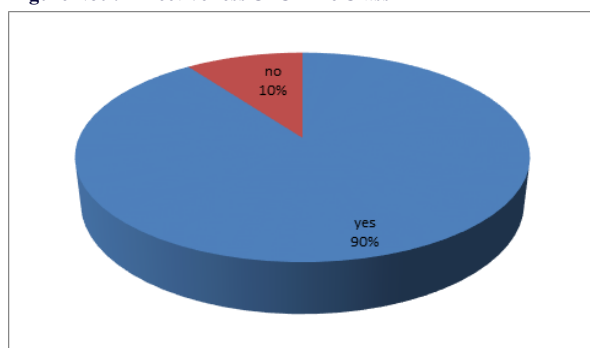


Figure No 9: Disadvantages Faced By Students



**Figure No 9: Effectiveness Of Online Class**

## 5. DISCUSSION

We did this study in Government Sivagangai Medical College and Hospital after getting clearance from Institutional Ethical Committee, 100 second year MBBS students were included in the study female were 60 percent and the rest were male students. All of them gave consent to participate in the study so all the responses were taken for the study. Google form was used to conduct the study and the questionnaire were sent to them and they were asked to complete it. Since the Covid-19 pandemic, lockdown is a new thing as medical teachers we were new to take online classes and at the same time we treated the Covid patients, we did this study to find out how effective the online classes were from the student point of view. 60 percent of students were attending online classes for more than 6 hours per day and 70 percent were willing to attend the classes for more than 6 hours per day. 70 percent used mobile phones to access online classes. We find that mobile phones were handy and easy when compared to desktops and laptops. Our study matched with the study done by Sapna et al wherein their study 74 percentage used mobiles. Most of the students like Google meet followed by Zoom and WhatsApp. These applications help the students to get connected to the teacher at their places. Health problems will be an important issue in the online system as they may have a headache, eye strain. We asked the participants whether they had any health issues 55 percent had no health issues while the remaining 45 percent had health issues in that 15 percent had a headache, 20 percentage had eye strain and 10 had both complaints out of the 45 students who said they had health-related issues. 60 percent reported that they had no stress in attending online classes, easy access to the mobiles and multitasking were the advantage faced by students during these online classes and the disadvantage is that bad network issues, gadget all time and self-motivation factors. When compared to the traditional classes online classes were preferred by the students and this mode of teaching helps them to learn the subject at their convenience and also they follow the Covid-19 pandemic protocol thus they protect them from exposure to the Covid. Limitations of the study were the sample size this study was done in a small sample size. Hence the date cannot be generalized. Study with big sample size may be done so that the effectiveness of online class can be studied in depth.

## 6. CONCLUSION:

We conclude that online classes were preferred by the students during the pandemic lockdown as it is the only source of their learning and it may be supplemented to normal offline classes in near future.

## 7. ACKNOWLEDGEMENT

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**Conflict of interest :** nil

**Institutional ethical clearance :** obtained

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