Research Article

Online Clinical Learning Boon or Bane? Undergraduate Students' Perspective

Pramila Menon[1*], Vineeta Pande[2], Sudhir Jadhav[3], Sharad Agarkhedkar[4]

[1]Assistant Professor, Paediatrics, Dr. D Y Patil Medical College, Hospital and Research Centre, Dr. D Y Patil Vidyapeeth, Pune, Maharashtra, India

[2]Professor-Pediatrics, Dr. D Y Patil Medical College, Hospital and Research Centre, Dr. D Y Patil Vidyapeeth, Pune, Maharashtra, India

[3]Professor-Community Medicine, Dr. D Y Patil Medical College, Hospital and Research Centre, Dr. D Y Patil Vidyapeeth, Pune, Maharashtra, India

[4]Professor and Head-Pediatrics, Dr. D Y Patil Medical College, Hospital and Research Centre, Dr. D Y Patil Vidyapeeth, Pune, Maharashtra, India

[*]**Corresponding Author:** Dr. Pramila Menon, Assistant Professor, Paediatrics, Dr. D Y Patil Medical College, Hospital and Research Centre, Dr. D Y Patil Vidyapeeth, Pune, Maharashtra, India

Citation: Pramila Menon, Vineeta Pande, Sudhir Jadhav, Sharad Agarkhedkar. Online Clinical Learning Boon or Bane? Undergraduate Students' Perspective. Journal of Psychiatry and Psychiatric Disorders 6 (2022): 018-024.

Abstract

Introduction: E-learning is use of electronic technology as a teaching-learning method to foster self-directed and collaborative learning.

Materials and methods: The study was planned through Google forms with semi structured questionnaire to understand usefulness of platform for clinical skills, challenges faced and suggestions for improvement. Data was recorded on a Google excel sheet and analyzed using SPSS version 26.

Results: The sessions were attended by 166 students out of 250 on Google classroom and video sessions. The response rate was 71.4%% (95 CI 67.5-75.8), 81% (95 CI 67.5-75.8) were happy with online teaching-learning in respect to lectures, 52.9% (95 CI;47.3-58.6) are using Google Classroom, 32.2% (95

CI;27-37.6) video based platforms, 53.6% (95 CI; 48-59.2) viewed Google Classroom as the best platform while 44.1% (95 CI;38.5-49.7) favoured video based platforms. Students felt online teaching is suitable for classes which are theoretical in nature, but they are not very useful for practical clinical training. They liked flexibility and ownership of resource material. E- learning was perceived by 64% students as not fruitful, 48.8% students not helpful them to learn clinical skills and 52.5% students reacted it is not boon but creating anxiety in their mind. Some expressed their feelings as online clinical training is useless (64%).

Conclusion: We conclude that online teaching is possible and acceptable as a complementary method to the traditional or conventional method of medical teaching in India as a normal part of the curriculum, irrespective of the lockdown period. The blended learning mode will be the best solution.

Keywords: Clinical learning; E-learning; Electronic technology; Collaborative learning

1. Introduction

E-learning can be defined as the use of electronic technology as a teaching-learning method which provides easy and effective information to students [1]. It is an effective tool to foster self-directed learning which gives the students greater control over their learning [2]. It has learner-centred approach with focus on faculty- participants interaction to develop collaborative learning which may be synchronous or asynchronous [3]. Due to the Corona virus pandemic, offline teaching came to halt. The nationwide lockdown imposed due to pandemic forced the world to shift to E learning strategy to reach out to students.

Hence, the need for online classes was felt and E-learning platforms were explored. The study was undertaken with aim to understand the acceptance and feedback of students in respect of online classes to learn clinical skills. The effort was made to understand the challenges and to find out solutions for better implementation of online classes for medical students in paediatrics.

2. Material and Methods

The study was planned at the department of paediatrics at Dr D Y Patil Medical college, Pune. The faculty and students were trained through video-based platform like Zoom (free version), Cisco Webex, Skype, Google Classroom and Google Groups. The approval for the study was obtained from the institutional ethics committee(Ref no: I.E.S.C/28/2020).

A google form was designed which included semi structured questionnaire focussing on platform used for online teaching learning, advantages, comfort level, usefulness of platform for clinical skills, challenges faced and suggestions for improvement. Data was recorded on a Google excel sheet and analyzed using SPSS version 26.
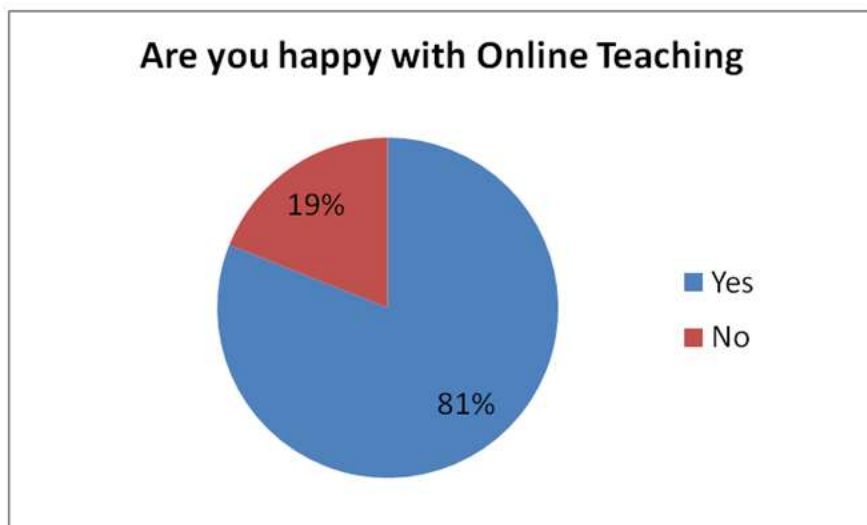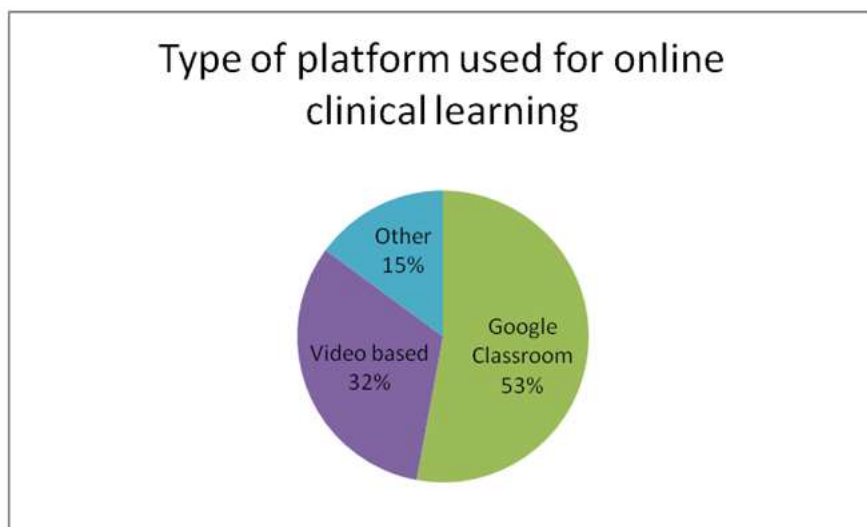
Figure 1

Figure 2

3. Results

The sessions were attended by 166 students out of 250 on Google classroom and video sessions. The response rate was 71.4%% (95 CI 67.5-75.8). As shown in Figure no.1, 81% (95 CI 67.5-75.8) participants were happy with the ongoing online teaching-learning in respect to lectures. Figure no.2 shows that 52.9% (95 CI;47.3-58.6) are using Google Classroom, 32.2% (95 CI;27-37.6) are using video based platforms like Zoom, Google Meet, Cisco Webex etc. 53.6% (95 CI; 48-59.2) participants viewed Google Classroom as the best platform while

44.1% (95 CI;38.5-49.7) favoured video based platforms for teaching-learning (Figure no.3).

Students felt online teaching is suitable for classes which are theoretical in nature, but they are not very useful for clinical training. They liked flexibility and

ownership of resource material. The only advantage would be that "we can attend during a pandemic". It's like"something is better than nothing". The difficulties faced were network issues and connectivity. We also looked at the disadvantages of online clinical skills classes.
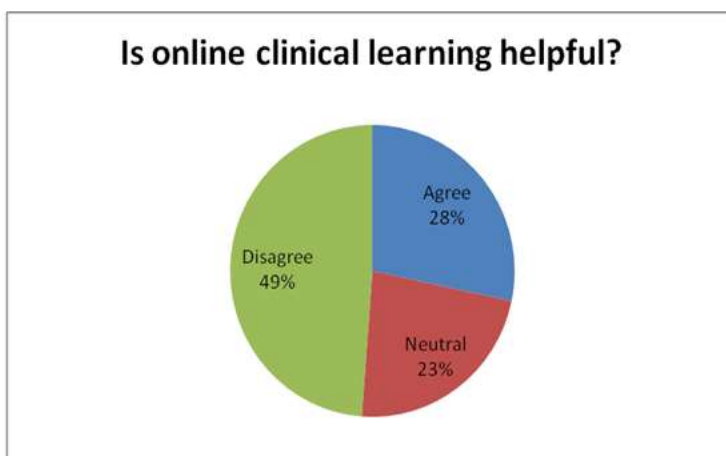

Figure 3

E- learning was perceived by 64% students as not fruitful. 48.8% students felt that online clinical teaching is not helping them to learn clinical skills. 52.5% students reacted it is not boon but creating anxiety in their mind as it is not making them confident to manage the patients. The students' responses highlighted the anxiety on their part. Some expressed their feelings as that online clinical training is useless (64%).

One of the response from our student made us introspect ourselves as teachers. "Because I know I'm not a very bright student and I don't want to make blunders ahead. Please extend our session if you really care about us ".

4. Discussion

Medical education which included clinical skills training faced a challenge. As the exposure to real patients was not available, it was imparted through video recordings and demonstrations online. Online learning has some advantages over traditional learning in delivery of the newest evidence-based medicine. There are no geographical barriers which results in better communication and networking with health care professionals from different countries can be done.

Our students described it as learning anytime anywhere around the world. Its flexibility ensures that the learner gains more control over their learnin [4]

.Our students felt access to study material anytime helped them to understand the concepts at their pace. Some of the students' responses in their own words. "Considering the profession we have chosen, we need to have a clinical exposure to different patients which is not possible through inline classes. Classroom experience is totally missing. The bond of trust that forms when a doctor communicates with the patient lacks. We can't become doctors sitting at home. We don't get to actually see and ask patients. Viva will be difficult for us. Clinical training requires looking at the patients and also develops our communication skills which is important for a medical student. At least for a final year student, we should be allowed to Look and talk to patients." To get medical knowledge and competency, patients' contact is very much needed and they cannot only rely on books [5]. It is proved that the students may not develop necessary clinical skills through online education systems, but it may exacerbate the burden on their mental health [6]. Using online resources to simulate clinical scenarios and in depth discussion on patient care and diagnosis can get students to develop out of the textbook thinking. It is a boon in this pandemic but not helpful as such in clinical skills.

The success of online teaching/learning depends on many factors. Both students' and teachers' perspectives are important to make it effective [7]. "Cultural resistance" of staff towards E- learning is identified as a barrier to student engagement with technology-based education. Hence, initiatives in favour of faculty orientation and training in respect of E-learning are necessary to successfully introduce e-learning programs. Orientation and training programmes were carried out on in our college as part

of our medical education activities. Our faculty found difficulties in the beginning and there was reluctance, but gradually they became familiar with this mode. However, they observed that the students were unresponsive at times and it was difficult to understand if they had any concerns. It is suitable for didactic lectures but not for clinical/practical training. WHO, UNICEF report 2017 suggested that online learning is feasible and effective for training health care professionals in acquiring knowledge and skills related to essential newborncare. Nearly 3500 physicians and over 1000 nursing professionals were trained in 12 sick newborn care courses and five essential newborn care courses [8, 9]. Stewart, et al. 2013 found that the group of medical students who received blended learning which had an online component in addition to the conventional teaching, achieved a significantly higher mean score in a module for teaching newborn physical examination skills than the control group [10]. The students wanted online classes for lectures to be continued even after the lockdown period. Similar experience shared by Scagnoli et al shows the importance of online training in COVID pandemic for pediatric undergraduate students [11]. Flexibility of E-learning provides information to the students beyond the specified timings of teaching in class and gives them freedom to read and learn whenever they feel the need for the same.

The same was documented in a Nigerian study and this point was also highlighted by our students [12]. Apart from the fruitful use of the lockdown period in the corona pandemic, the present study revealed the acceptability of the online learning mode by the students and faculty with few suggestions. To help the

students to develop clinical skills we may need to adapt the blended mode. As we move on to un lockdown mode the students should be posted to clinical rotations in small groups.

5. Conclusion

Online e-learning is extremely crucial in the pandemic but should not replace the time-tested conventional classroom teaching especially in the medical field. The suggestions by the students included that e-learning should be blended with the conventional teaching and adopted as a regular part of the curriculum. We conclude that online teaching is possible and acceptable as a complementary method to the traditional or conventional method of medical teaching in India as a normal part of the curriculum, irrespective of the lockdown period. The blended learning mode will be the best solution.

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