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Research Article

Online Undergraduate Teaching (Obstetrics and Gynecology) During Corona Times Sharing Our Experience

Sukesh Kumar Kathpalia*

Professor, Department of Obstetrics and Gynecology, Dr DY Patil Medical College and Research Centre, Dr DY Patil Vidyapeeth, Pune, India

***Corresponding Author:** Sukesh Kumar Kathpalia, Professor, Department of Obstetrics and Gynecology, Dr DY Patil Medical College and Research Centre, Dr DY Patil Vidyapeeth, Pune, India

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Abstract

Introduction: World Health Organisation declared Covid 19 as pandemic on 30 January 2020 and thereafter the whole world has been affected. The disease and the fear of contacting disease scared everyone equally irrespective of caste, creed, religion, gender or financial and social status. Since the transmission of virus is high; most countries imposed rigorous public health measures including complete closure of schools and educational facilities. Medical institutes too were closed. The only option left was online teaching. Smart phones were used in our project for teaching/learning.

Materials and Methods: This study project was undertaken at Dr DY Patil Medical College Pune under Dr DY Patil Vidyapeeth. Two WhatsApp groups of 258 students were formed. Everyday some questions with one word or one sentence answers were posted on the groups and answers provided the next day. Students were keen to discuss instruments, specimen, drugs and clinical cases which were included subsequently. Theory answers and viva practice also was done on WhatsApp.

Observation and Results: The project was conducted for online teaching and revision for the final semester students for duration of seven months. Approximately 700 questions with one word or one line answer, 16 short answer questions and 6 long answers questions were discussed including questions on specimens, instruments, drugs and clinical cases too were included for the purpose of revision and practice. Feedback by students was very good and encouraging.

Discussion: The COVID-19 pandemic has forced drastic and sudden changes in almost all sectors including medical education. The use of the smart phones worked very well during these times and students suggested that this should continue later also. Online teaching is a good alternative and can compliment the class room teaching.

Keywords: Online Teaching; Medical Education; Lockdown; WhatsApp

Introduction

World Health Organisation (WHO) declared Covid 19 [1] as pandemic on 30 January 2020 [2] and thereafter the whole world has been affected in an unprecedented way which was never expected or anticipated. The disease and the fear of contacting disease scared everyone equally irrespective of caste, creed, religion, gender or financial and social status [3]. Transmission of COVID-19 virus is high; as a result, countries worldwide have imposed rigorous public health measures, such as quarantine, social distancing and lockdown [4].

Every aspect of daily life was affected and hence education sector too was not spared; including medical education. The policy adopted by the countries all over the world in preventing the spread of the disease was complete closure of schools and educational facilities. Schools and colleges were closed for a long time; face to face teaching was missing. The only option left was online teaching [5] which was new to students and teachers both; resulting in many unforeseen changes in many parts of the world. Developing countries had to face more challenges as the technology was either

lacking in many remote areas or it was not affordable by many institutions and students.

Covid-19 has affected all levels of global education systems from the pre-school to the university and has also caused cancellation or postponement of academic conferences and other activities [2,6-10]. The highly contagious nature of the virus has made it difficult to continue lectures as usual, thus influencing the medical education process, which is based on lectures and patient-based interactions. This resulted in suspension of medical college classes all over the world. Clinical attachments are vital to aid the progression of students' confidence and competencies as future doctors to work in the society; and this kind of attachment and involvement was lacking during these times.

Widespread interruptions to medical education are seen throughout history; at times of major conflicts, the quality of training suffers as a result [11,12]. During World War II, certain American medical schools shortened their postgraduate degree programme from 4years to 3 years to address doctor shortages [13], teaching and training were affected during those times. However, we now have more technical tools to enable remote learning, despite billions of the world population in lockdown. It does not imply a complete halt of learning opportunities. Since the outbreak of COVID-19, medical institutes have sought ways to replace real medical education and attachments with virtual clinical teaching. The provision of medical education is uniquely challenging in that there is a need for vocational exposure in a clinical setting which can't be sufficiently replaced remotely. In such difficult times there is a need to look for some substitutes to real time teaching. Smart phones can be used for virtual teaching and assessment. Smart phones have been used earlier also for learning in times of crisis [14]. We used smart phones for teaching/learning purposes for the final semester students who had missed classes, tutorials and clinical rotations due to lockdown. The aim of this project was not only teaching but was also to remain connected with each other in such difficult and uncertain times and gain confidence before appearing for the final examinations.

Materials and Methods

This study project was undertaken at Dr DY Patil Medical College Pune under Dr DY Patil Vidyapeeth. Two students of final semester contacted the author regarding the difficulties the students were facing due to lack of real time lecture hall classes, clinics, ward attachments etc. They desired something which could be ongoing and provide some virtual clinical exposure and preparation for final examination. It was suggested by the author if forming a WhatsApp group of all the students was possible and also confirm the willingness of some more students. As more than 250 students were to be included in the group hence two groups named Get Set Gynae 1 and 2 were formed. Since the beginning; not a single student left either of the two groups.

Figure 1 shows the first message on the group. Every day a set of questions (Figure 2) was put on the group and students were asked to write down the answers and compare with the answers put up on the group the next day. These questions were selected at random and had one word or one sentence answers. By the beginning of final semester most of the topics have been covered hence there was no difficulty in selecting questions. Even if some topic was not covered it stimulated the students to look for the answers or do self-study of the topic. The response and answers of the students could not be checked and it was not possible to check all the answers. It was left to them to compare their answers with the model answers posted the next day.

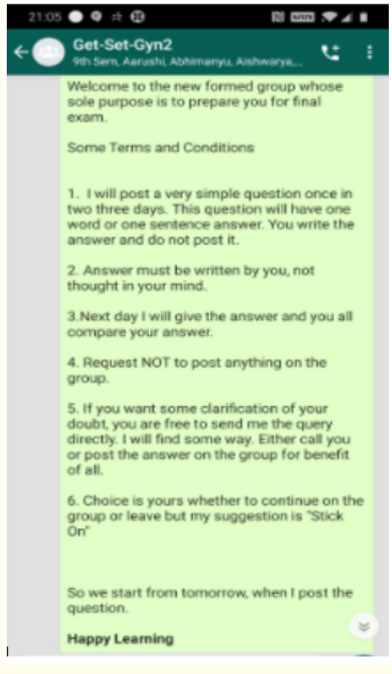

Figure 1: First message on the group.

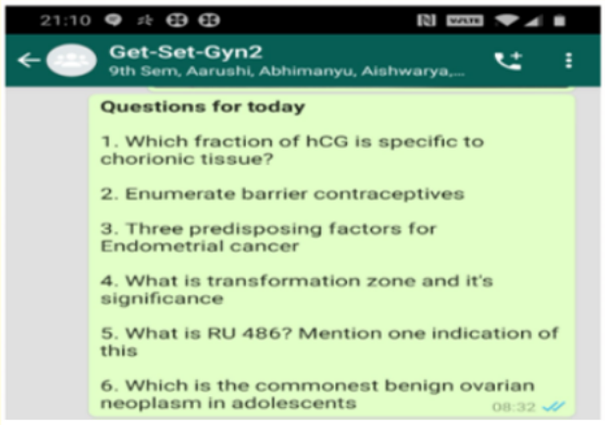

Figure 2: Set of questions.

Few days later; the students had started sending their doubts (Figure 3) and questions were formulated and posted on the group for the benefit of all. The students who had asked the questions were answered separately and a call was made to him or her. If two or three students had similar doubts then a conference call was made and queries resolved. No subject questions were asked on Sundays and holidays to give them a break but something interesting (Figure 4) was shared on the group to break the monotony.

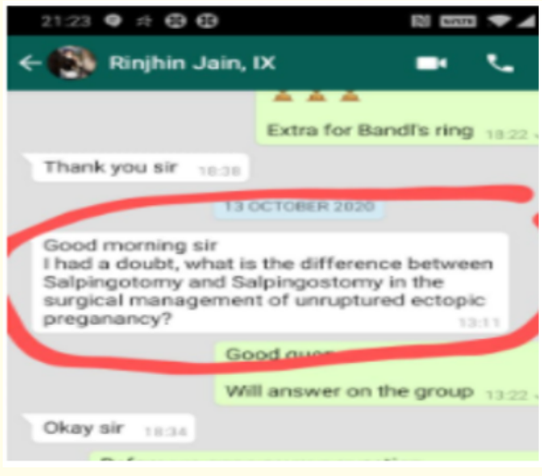

Figure 3: Students' Doubts.

Students were keen to discuss instruments, specimen, drugs (Figure 5) and clinical cases as would be asked in the practical exam. These topics too were covered. Since the students were keen to practice viva; three or four students were told to send the audio recording of the questions asked but their audio answers were not posted on the group to avoid embarrassment but the model answers was posted by the author in an audio recording (Figure 6). Clinical cases too were discussed (Figure 7). Students wanted to learn the techniques of answering theory questions – long and short answer questions (LAQ and SAQ).Guidelines were suggested to them in the form of 'Ten Commandments'; (Figure 8) every third or fourth day the students were asked either an LAQ or SAQ and next day the answer in skeleton form (Figure 9) was provided.

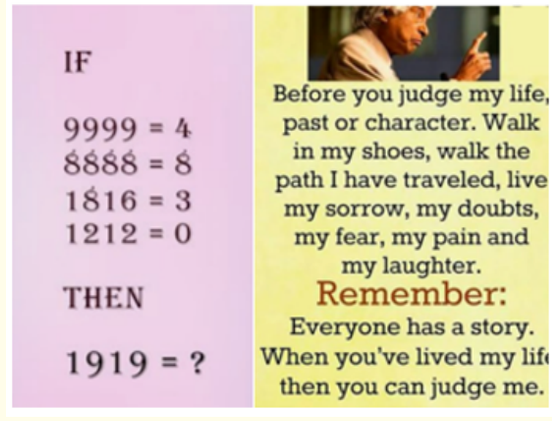

Figure 4: Non subject questions.

Figure 5: Instrument Specimen Drug Questions.

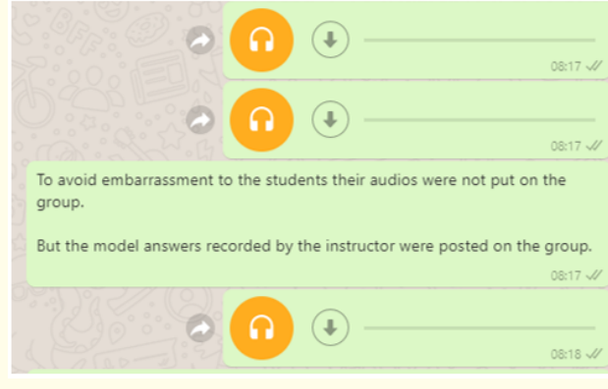

Figure 6: Audio recordings.

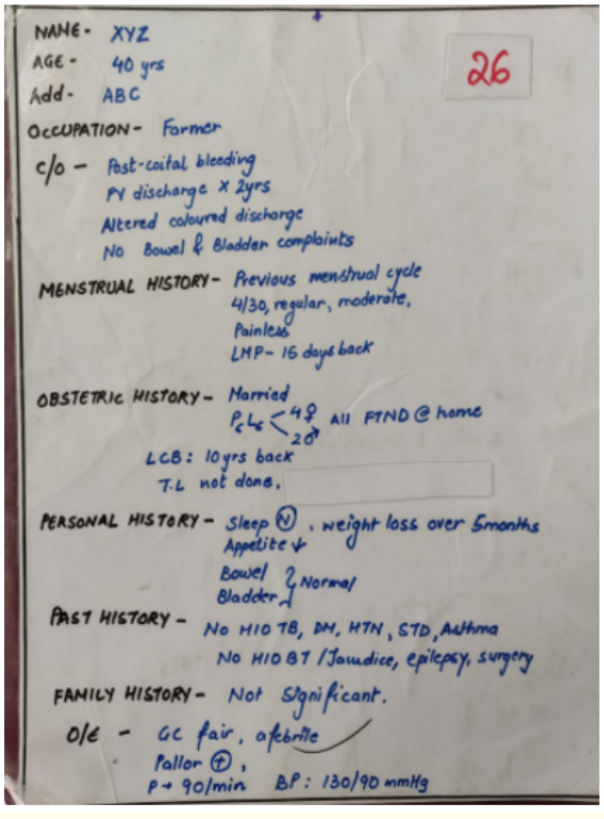

Figure 7: Clinical Case.

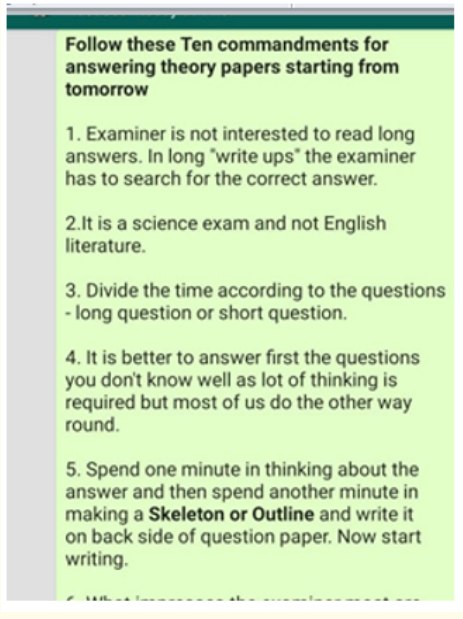

Figure 8: Ten Commandments.

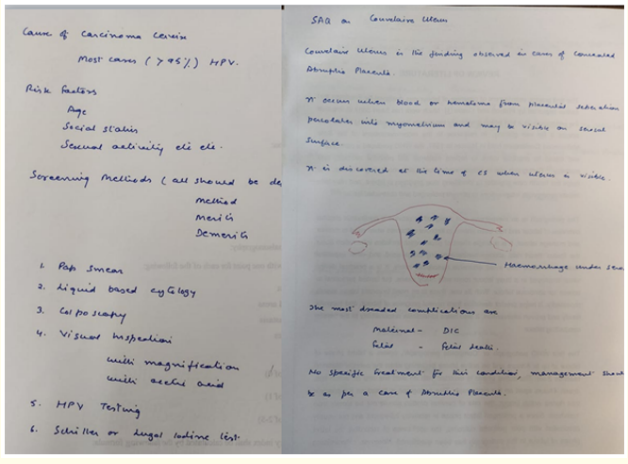

Figure 9: Model answers.

So far it was not known if the students were actually involved or no; three or four students from each group were sent the questions personally and were advised to post the written answers (Figure 10). The same questions were asked on the two groups also. Their answers were checked and corrected if required and they were informed about their answers. Their answers were not posted on the group. Every now and then a special question was asked termed as "Jackpot Question of the Day" (Figure 11) and many answers were received to these special questions.

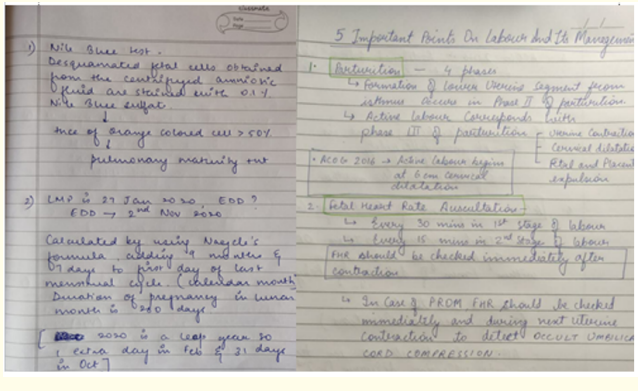

Figure 10: Students' answers.

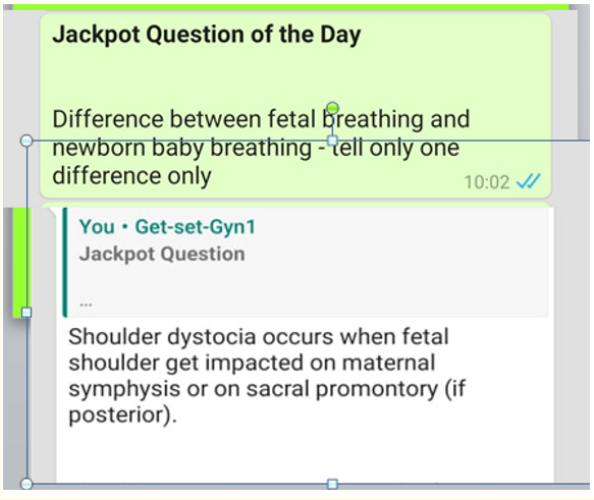

Figure 11: Jackpot Question.

Some students contacted the author to be part of their group discussion and group studies which indicates the trust, faith and confidence these students had developed. Many students contacted the author regarding the difficulties they encountered during the preliminary exams and these doubts were clarified on the group. A farewell message was posted on the groups few days before the beginning of the exams and feedback sought.

Observation and Results

The project was conducted for online teaching and revision for the final semester students in the subject of Obstetrics and Gynecology for duration of seven months; until a few days before the commencement of final exams. Two groups were formed consisting of 127 and 131 students in each group respectively. All the students continued throughout; not a single student left the group.

Approximately 700 questions with one word or one line answer, 16 SAQs and 6 LAQs were discussed. Few specimens, instruments, drugs and clinical cases too were included for the purpose of revision and practice. 80% of the students sent their written answers and those who didn't send the answers were not contacted to avoid embarrassment. 204 (78%) out of 258 students, were either contacted on phone, sent personal messages or they contacted the author themselves.

All students were requested to submit their feedback in the form of following

- How would you rate this kind of teaching on a scale of 1 to 10
  - 9-10 (extremely useful)
  - 7-8 (very useful)
  - 5-6 (useful)
  - 3-4 (not useful)
  - 1-2 (Waste of time)
- Your comments if any
- Should this kind of teaching be continued in future?

The limitation of the feedback was that it was not confidential. Out of 258 students 178 (68.9%) responded, 112 students gave 9-10 marks, 64 gave 6-8 marks and only two students gave 6 marks. No one gave less than five. Of all those who responded; only 93 students came forth with the remarks, some samples are shown in figure 12; only one negative comment was there. 147 students wanted to continue such kind of online teaching even after Covid times also for the future batches; no student wanted non-continuation of this type of teaching.

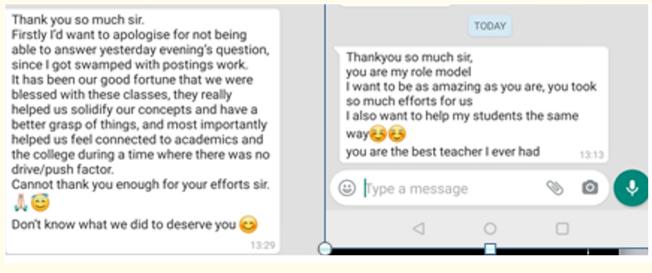

Figure 12: Feedback.

Students' participation and involvement was very encouraging; interaction between students and faculty improved to a great extent.

Discussion

The COVID-19 pandemic has forced drastic and sudden changes in almost all sectors the world over. Nothing has been spared from its impact, including medical education. Medical education relies primarily on classroom teaching, laboratory work, clinical attachments and tutorials. There was no direct interaction between students and teachers, and clinical exposure due to lockdown. Face to face classes got cancelled. The lockdown was implemented to prevent the spread of the disease. Hence we must develop a medi-

cal education curriculum that provides students with opportunities for continuous learning even when away from their institutes. It was easier for developed countries with easily available high end technology to shift from conventional teaching to online or virtual teaching; but the same may not have been possible to similar extent in developing countries due to lack of resources. This change in educational methods created many challenges to students and the faculty. Online education is new to the majority of students in developing countries. One could choose any of the online methods like Zoom, Google Meet, GoToMeeting, Skype, WhatsApp, ezTalk, Moodle, emails and BlueJeans.

These days the students do not carry heavy and big books; but all of them carry smart phones [14] which were put to their best use under this innovative project. The use of the smart phones worked very well during Covid times and students suggested that this should continue later also. Undoubtedly face to face teaching is the best but at times when that is not possible then online teaching is a good alternative and may form part of regular teaching as it has its own advantages also [15-17].

Many challenges were posed by the SARS epidemic but at that time also many resourceful initiatives were implemented, leading to progress in medical education. In one Chinese medical school, online problem-based learning techniques were implemented to complete the curricula; these methods proved incredibly popular, to the extent that they were applied in subsequent years. These innovations and actions reiterate that even in difficult times; some comfort can always be found [18,19].

The Covid 19 pandemic is ongoing and will continue to disrupt medical education and training. These unique times have facilitated the introduction of many new educational methods in medical schools globally each of which with potential merits; our project was one such attempt.

Mental health challenges and issues were also of concern [10] due to uncertainties and changing government directives. Parents too were anxious as their wards were losing time and were at risk of getting the disease. There were many calls and messages by students expressing their anxieties. Providing encouragement and reassurance in such times of crises and troubles was the extra advantage of forming this group.

Limitations

Proper assessment of all the students was not possible but it was done at random with the sole purpose of correcting, encouraging and preparing them for final assessment.

Conclusion

Online teaching is a good option either as an alternative as happened during Covid 19 times or as complimentary to face- to-face teaching and education [20]. The students too were keen that this should be continued as suggested by them in their feedbacks.

Conflict of Interest

None declared.

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