

ORIGINAL ARTICLE

A Qualitative Study Exploring the Impact of Covid-19 Pandemic on Teaching and Learning of Family Medicine Course among Undergraduates in a Local University in Malaysia

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ABSTRACT

Introduction: The COVID-19 pandemic significantly impacted the global teaching and learning process (TnL). Unfortunately, to date, not many qualitative studies have been published specifically on the impact of COVID-19 on the Family Medicine course, particularly in Malaysia. Hence, this study aimed to explore the impact of COVID-19 pandemic on the teaching and learning experience of undergraduate students undergoing their Family Medicine course at a local university. **Methods:** A qualitative study using focused group discussion (FGD), was conducted among undergraduate students during the lockdown period. A semi-structured interview guide was used to interview 20 students, in their fifth undergraduate year, undertaking their fourth to fifth week of a total six-week course. They were selected using purposive snowball sampling method. There were four focus group discussions (FGD) with five students in a group. All interviews were audio-taped, transcribed verbatim, and the contents were analysed using the standard content analysis framework. Subsequently, thematic content analysis was conducted, and three major themes were produced. **Results:** The three major themes were (1) facilitators to learning, (2) barriers to learning, and (3) rooms for improvement. **Conclusion:** Although COVID-19 pandemic had significant impact on TnL of Family Medicine course among undergraduates, the students remained optimistic and proposed some improvement from their point of view. However, a creative, realistic, effective, and impactful way of TnL, particularly in clinical aspects should be developed and experimented. Technological progress and advancement should permit this idea to be achievable and implemented in near future.

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INTRODUCTION

Family medicine is a clinical specialty that provides a comprehensive care to individual, family and community. This field incorporates physical, behavioural, biomedical and social sciences regardless of patient age, gender or race. In the academic field, family medicine embraces comprehensive health care services, education and research (1).

Although education program in Family Medicine began in 1950 in the United Kingdom, it was only later by 1980 that this course was taught in the South East Asian countries like Malaysia. However, this began with

teaching for the postgraduate program. Later, Family Medicine was slowly incorporated in undergraduate programs and taught in the clinical years. The teaching method for Family Medicine is as other clinical courses with emphasize on common clinical problems, clinical skills, communication skills and behavioural sciences. Yet, the difference is that, unlike other clinical courses that are taught in hospitals, the clerkship rotations is in the University Family Medicine Centres and General Practice preceptors in the community health centres (1). In Malaysia, students' clerkship is also commonly termed as posting and are usually practiced in Primary Care Clinics under the Ministry of Health. These clinics are called "klinik kesihatan" in local settings.

Family Medicine course in Universiti Sains Islam Malaysia (USIM) begins with the teaching of the first batch of the Faculty of Medicine and Health Sciences (FPSK) students, when they were in year five, Bachelor Degree

in Medicine, Bachelor Degree in Surgery (MBBS) study. Currently, the 12th batch of the students had recently went through the course and this study was conducted among them. The teaching and learning (TnL) method in USIM, is almost similar to other universities in Malaysia with few differences. In USIM, students need to have access to 'Global Access Learning System' (GOALS) and TEAMS, the new era of TnL method. However, most importantly, the unique criteria of Family Medicine teaching in USIM is in the integration of "Aqli" and "Naqli" components in TnL process. "Aqli" refers to the conventional knowledge, while "Naqli" refers to the revelation of knowledge that originates from the Holy Quran and Hadith (2, 3). Our graduates are also emphasized on the memorization of three 'juzuk' of the Holy Quran during their years in the medical school to enable them obtain their MBBS (3).

For posting rotations, the students will go to three different "klinik kesihatan", which includes urban and rural clinics with in-house Family Medicine Specialist. However, during this study, one of the "klinik kesihatan" was under construction, hence for students' safety, they were not sent to that particular clinic. The students also had the opportunity to be posted to the district hospitals as included in the course learning outline. In the district hospitals, the exposure was more focused to the emergency unit. Since the total number of students to Family Medicine course were forty, each clinics had twenty students as there were only two "klinik kesihatan".

The Family Medicine course takes six weeks with the theory classes in the first and the last week, that is conducted in the faculty. During the middle weeks, consisting of four weeks, students will be in the "klinik kesihatan" and district hospital. The interviews were done when the students were in their fourth and fifth week of the course, that is during their clinical attachment in "klinik kesihatan" and district hospital. However, this time, owing to the augmented case of COVID -19, they only had two weeks clinical attachment experience in the district. From the fourth to sixth weeks, the students had to stay in hostel, in Nilai where the faculty is located owing to the lockdown. Universities in Malaysia were significantly affected by this pandemic (4).

At the end of the course, that is the sixth week, students will undergo assessment that consist of theory and clinical exams. The exam marks will be added to the continuous assessments, and this will decide the passing of the course by the students. However, this pandemic has brought many impacts on TnL of students. The new norms of virtual teaching that is non-face-to-face requires students' adaptation, stable internet connections, supportive environment and encouraging teaching method by the lecturers (5-8). The lecturers involved with the students in this study, conducted clinical classes virtual as there were no opportunity

to meet up the students, since the lockdown. This immediate walkout of traditional teaching, cancellation of face-to-face clinical classes and practical session, may have significant impact on students (5-8). Hence, it is essential to explore the students views about the Family Medicine course during COVID-19 pandemic, as this course has a different approach of TnL than other universities courses. The students need attachment with the community, with clinical session in the rural clinics and district hospitals. Hence, there is a requirement to identify the challenges on this drastic change of TnL method as the students are the end receiver of this new norm TnL process for future improvements in TnL.

Moreover, universities have the responsibility to ensure students are satisfied with the TnL process of the courses offered particularly at the time of COVID-19 (8). It is also the responsibility of the universities to produce knowledgeable and well equip doctors for future, who can serve the community and provide quality care to patients (3). Therefore, the aim of this study is to explore the impact of COVID-19 pandemic on teaching and learning of Family Medicine course among the undergraduates of USIM. To embark this, a qualitative study through phenomenology, employing focus group discussion (FGD) were conducted. About twenty students participated and there were four groups consisting of five students in each group. This study is expected to further contribute to the improvement of teaching and learning process, at this tough time of COVID-19 pandemic and for future curriculum review for Family Medicine course, in the university.

MATERIALS AND METHODS

Study design

A phenomenological qualitative design using focus group interview was applied to allow researchers to explore students' ideas, opinions, and experience towards the specific issue of the COVID-19 pandemic impact on TnL of Family Medicine (9-10). Qualitative study is becoming more common in medical education as it provides understanding towards a specific issue, as the subjects are able to express in their own words (11). In this study, focused group discussion (FGD) was adopted owing to the design flexibility that allows eliciting of data from a group of students in the same course of Family Medicine, enduring the same situation of TnL during the COVID-19 pandemic. A FGD is beneficial when time to collect information is limited, and if it is anticipated that a one-on-one interview can cause hesitation of the interviewees. In this design, the attitudes, experiences, and intentions of the students of the same group were studied and who can cooperate with each other well. The researchers were also able to get a broad overview of the issue studied, concerning this group of students (9). As this method generates a broad range of ideas and opinions on the issues and reveals variation in viewpoints between groups (11). In

addition, for Malaysian students who are still culturally respectful towards their lecturers, a FGD will stimulate conversation and encourage reactions that were examined in this qualitative study (9). However, all participants must be encouraged to speak, and care must be taken to identify any individual dominating the FGD. Although the results from FGD are not generalizable, but the added value of knowledge allows significant improvement to the group and the similar groups for the issues studied (9). Contrarily, a one-on-one interview would require interviewees who are not shy to speak, to ensure that adequate information is gathered. Therefore, consistent with the purpose of this study, FGD is a superlative choice with a far more research potential than any other model, to understand the issues in TnL during the COVID-19 pandemic (11, 12). However, lack of moderating experience and reluctance of sharing sensitive contents may be barriers to a FGD.

Participants

The lecturers informed all students regarding the study. Participants were identified via purposive, snowball sampling. Two student leaders, a male and a female leader were explained regarding this study to invite their friends. The students were encouraged to express their sincere opinion during the interview for the betterment of the course. The students were at the fourth to fifth week of their six weeks course when the interview was conducted. The 20 students were divided into four groups randomly, consisting of five students in each group.

Students who met the inclusion criteria were invited to join the study. The criteria were student in Family Medicine course, and aged 18 and above. Exclusion criteria included those who refused to participate, those who refused focused group discussion and refused virtual discussion. Twenty students expressed interest to participate in the study. Before commencing interview, participants were explained about the purpose and conduct of the study. Participations in the study was totally voluntary. Written informed consent were obtained from each participant. The form was given and returned to interviewers virtually, after being signed by the students. A short questionnaire regarding sociodemographic background was also issued prior to the interview.

Setting

The interview was done virtually in view of the COVID-19 lockdown. The students were stranded in hostels while the lecturers worked from home. Both groups had movement restrictions, despite living nearby, they were in different states and districts. Interstate movement restriction was strictly conducted in Malaysia to control the spread of the COVID-19 virus. Therefore, movement for the purpose of interview were not allowed, hence virtual interview using Microsoft Teams®, with the video on was an alternative. The interview of all four

groups were also recorded.

The interviewers for this study were not their lecturers. Two interviewers, who were the former university students with experience in qualitative study. Each were given task; however, they interchanged their task according to requirements during the interviews. They were explained about the interview protocol for a more productive qualitative data collection.

Among the two interviewers, one interviewer asked questions and communicated with them. While the other interviewer, took field notes focusing on student interactions which included verbal and non-verbal communication. The student reactions, responses and tone of voice was documented. The interview via Microsoft Teams®, were recorded using digital audio. Each interview lasted about 60 to 90 minutes. Interviews were conducted in English and Malay. Students felt free to express their thoughts, opinions and emotions at their own comfort level. All interviews were checked for accuracy and consistency by listening to the recordings. This study was approved by the Universiti Sains Islam Malaysia (USIM) Ethics Research Committee, USIM/JKEP/2020-92.

The interview protocol was constructed based on previous literature reviews on medical education, teaching and learning, and based on current Family Medicine curriculum. This study aimed to obtain collective understanding of the central phenomenon using open-ended and probing questions and adapted as new themes emerged. The themes included experience during the student were in the course, learning Family Medicine theory and clinical during the COVID-19 pandemic. As the aim of this study intended to explore students' perception on TnL during the COVID-19 pandemic. This process was iterative till saturation of themes were achieved (13).

All interviews were audio-taped, transcribed verbatim and the contents were analysed using the standard content analysis framework. Subsequently, thematic analysis was conducted to yield the main themes. The first author and co-authors analysed the transcripts line by line, which were read repeatedly and analysed thematically for their content. The emerging topics where themes were revised, and interpretations were refined over regular meetings.

Data Analysis

The recorded audio files were downloaded into computer and interviews were transcribed verbatim by the researchers. Coding and thematic analysis were then conducted accordingly (14). Thematic analysis was used to identify and describe emerging patterns across data by searching for implicit and explicit themes related to our study objectives. Coding for the interviews were done by five lecturers. Interview notes were also considered

for coding. The issues that arose in the text were codified by researchers using a think aloud protocol. Coded data were reread and reviewed several times. The researchers discussed further to reduce overlapping and redundant codes.

All the lecturers who were the researchers discussed the emerging subthemes together. This was done in a series of discussions, to review and refine the codes and subthemes. Similar subthemes were identified and combined to form major themes. Redundant codes were removed. Themes were built based on the reading and categorizing of the codes through interpretative filters of the researchers. In a final review, the researchers concluded the identified themes.

RESULTS

Focus group discussions (FGD) involving 20 students, consisting of 9 males and 11 females were interviewed (Table I). There were 9 students from group A1 and 11 students from group A2. There were 5 students in a group and all of them were fifth year Family Medicine students in their fifth week of study (almost completing the course). Although they were from different states in Malaysia, they were all stranded half way during the course, in a hostel in Nilai, Negeri Sembilan due to the COVID-19 lockdown. There were 15 interrelated themes identified from the thematic analysis of codes and subthemes. However, three salient themes were highlighted as significant impact on COVID-19 pandemic on teaching and learning (TnL) of Family Medicine. The themes were: (1) Facilitators to learning, (2) Barriers to learning, (3) Rooms for improvement. Although COVID-19

pandemic had significant impact on TnL of Family Medicine course among undergraduates, the students remain optimistic and proposed some improvement from their side. Each theme is summarized below and exemplary quotes (Malay quotes were translated into English) where each theme is displayed in Tables II.

Theme 1: Facilitators to learning

COVID-19 has a significant impact on TnL. Nonetheless, students said that they understood that these effects were due to COVID-19, with quarantine and physical distancing being mandatory. With their tolerance, they gave the feedback that the entire teaching method used was the correct method. The COVID-19 outbreak had halted physical meeting as the risk of contracting disease was high and the diseases itself can cost lives. As a result, they had to stay in hostel, halfway during the Family Medicine Course, and the classes were all virtual. Even the clinical classes that includes physical examinations, were virtual. However, the students expressed themselves positively and autodidactically to accept the virtual teaching method as an alternative and valuable for their learning process. But some students expected hybrid teaching as they find face-to-face TnL was still important as part of their learning process. The faculty management and the implementation of the course led by the course coordinator (lecturer in charge) of the course was applauded by the students. They agreed with the faculty administration and the flow of the course, as they find this to be imperative.

Theme 2: Barriers to learning

Under this main theme, there were five subthemes with twelve codes. This demonstrates that there were significant barriers in TnL of Family Medicine Course at this time of COVID-19 pandemic. The barriers arose due to several factors. Some factors can be prevented while other factors require intervention. The factors that is preventable are the subtheme related to technology and distraction. As for technology, the codes show that data and internet connectivity are the main problems. While for distraction, usage of digital devices and the duration of the virtual classes are the main concerns. On the other hand, factors that need intervention are seen in the subthemes of clinical exposure, learning environment, and uncertainty issues. Subthemes of clinical exposure displays the codes related to context of exposure like students are upset that they are unable to go to the hospital and the emergency department for clinical. Students are also upset in terms of task, that they are unable to observe procedures, have less clinical practice and fewer patients for examination as well. They also have limited bedside teachings with lecturers. The subthemes of learning environment revealed two codes, namely the physical space, and limited patient visits. There was limited space in the health clinics for students to clerk patients particularly the elderly, and this also affects patients' privacy. In addition, there have been limited patient visits to the health clinic since the

Table I: Socio-demography and clinical information of the respondents, n=20

Characteristics	Frequency (%)
Age (year)	
23	20 (100)
Gender	
Male	9 (45)
Female	11 (55)
Group	
A1	9 (45)
A2	11 (55)
State	
Pahang	2 (10)
Selangor	6 (30)
Terengganu	3 (15)
Kelantan	3 (15)
Kedah	1 (5)
Johor	1 (5)
Sarawak	1 (5)
Negeri Sembilan	1 (5)
Melaka	1 (5)
Perak	1 (5)

Table II: Identified subthemes and themes for the facilitators to TnL of Family Medicine course during the COVID-19 pandemic

Theme	Subtheme	Codes	Evidence
Facilitators to learning	Overall Teaching method.	Right teaching method.	i. During the COVID we need to have physical distancing.
		Students' understanding and tolerance.	i. Due to COVID situation, I think the study method is good
	Virtual classes	Virtual class is an alternative	i. I think virtual classes help us a lot at this time (lockdown and pandemic).
		Virtual class is valuable	i. Virtual is useful due to pandemic ii. Virtual can still be used.
	Hybrid classes	Hybrid class is required	i. Good, hybrid, face to face and virtual class than just virtual. ii. Because of pandemic era. Good enough... face to face and virtual class. iii. Hybrid classes is suitable due to pandemic.
	Faculty's administration	Faculty's management is vital	i. I agree with faculty's management during pandemic. ii. The management of the running of the posting during this pandemic period by the faculty is applauded. iii. Proper management during this pandemic by the faculty and the posting.
Barriers to learning	Technology	Data	i. We do virtual teaching, there's limitation on the internet usage and also the data and the line of the internet connection
		Internet (Dis)connection	i. Second thing is due to the internet connection, there sometimes, there is problem internet connection. ii. But due to this COVID pandemic, there are some restrictions, like (student) said just now, about the connection.
	Distraction	Digital device	i. Distractions are like, some students, they learn virtual using their phone, some using their laptop and some using their iPad and some more, so when using their phones like that, so the example of distraction like the WhatsApp notification come, so they will do multitasking like learning virtual and then checking WhatsApp, like that. ii. When we are learning virtual, there are some possibilities that the students might have other kind of attractions eh.
	Instructions	Duration	i. Duration of virtual teaching is long for example 3 hours; we will easily be distracted.
	Clinical exposure	Context	i. Upset that we cannot go to the hospital, because of the COVID-19 situation. ii. May be due to pandemic COVID-19 there is some sorts of limitations. We can't go to ED in hospital.
		Task	i. We are not recommended to observe patient taking the neb (nebulizer). ii. because patients are in the SARI section so we are not encouraged to enter the SARI section, so I think that is one of our limitations. iii. We cannot simply observe any procedure as the staff want to reduce people around. Reduce contact. iv. Due to COVID, we have less clinical practice and patient examination, yeah so we have to practice with our friends, so it's a bit different there.
		Teaching	i. That lacks of bedside teaching since lecturers are unable to come to health clinics but the teachings were covered by specialist and MO at the health clinics.
	Learning environment	Physical space	i. Elderly patients can't hear well when clerking is conducted at public area like in the patient's sitting area outside the clinic. ii. Patients has to sit outside the clinic, difficult to clerk. No privacy.
		Patients	i. Due to pandemic, hence less patient. Not many patients come to clinic. Feel sad
	Uncertainty	Rejection	i. Actually, for me, the challenges in this posting, is the same with other posting because we face rejection and difficulty in learning, however for this posting, might be due to the pandemic COVID-19, I can say, that because we have a limitation to go to certain places, such as the ED in hospital A.
	Contracting infections	Contracting COVID-19	Patients: i. The patients are afraid that I might have the COVID and especially when I want to clerk the paed patients, the mother or the care-taker would be very anxious. Don't allow us to examine their kids. ii. The patients are afraid that I might have the COVID and very reluctant to be clerked or examined. Students: i. I am also afraid the patient has the COVID. ii. I don't know patient status. iii. I am not wearing a PPE. I am worried of COVID.
	Assessment	Assessment	i. I think I can pass however I also think I may not pass this posting because I think hmmm.... I lack in terms of examination of the patients. ii. I am lack in physical examination to patients. iii. I will pass but I think for myself, I will give more effort in terms of learning like similar what my friend said just now, I have issues on doing the physical examination to the patient, but it's okay we have time and in shaa Allah, I will put effort on this. iv. I think I would pass the examination in shaa Allah but what my concern is about counselling method. I think because sometimes for me lah is quite hard to counsel the patient

Table II: Identified subthemes and themes for the facilitators to TnL of Family Medicine course during the COVID-19 pandemic (continued)

Theme	Subtheme	Codes	Evidence
Rooms for improvement	Theory classes	Non-clinical classes at the faculty.	i. Theory classes like seminar are better to be conducted at the faculty with face-to-face teaching ii. Some classes can be done face to face at faculty
	Physical examination classes	Physical examination classes at the faculty	i. Except I think for the PE maybe we can do the hands on with the patients in faculty, not virtual because virtual we cannot appreciate much. ii. To get hands on physical examination classes in faculty

pandemic. Hence, this affects students clerking skills. Another subtheme that was yielded is about uncertainty. There are three uncertainty codes. These are the rejection from patients, patients and students who are afraid of contracting COVID-19 and the assessment that the student will be sitting at the end of the course as there is not much clinical exposure. Medical students in clinical years are used to being rejected by patients during their clinical practice by patients, but COVID-19 makes this scenario worse, and this is having a huge impact on the TnL Family Medicine course during the COVID-19 pandemic.

Theme 3: Room for improvement

Even so, there are many subthemes and codes for the barriers to TnL during COVID-19. From the student's point of view, there is room for improvement. They suggest taking the theory class in the faculty, face-to-face rather than virtual. The situation is similar with the clinical classes, although this may seem difficult in times of pandemic. They prefer physical examinations classes at the faculty and there are hands-on sessions with the patient. They have difficulty appreciating the virtual clinical examination classes and this contributed to their decreased confidence in the final exam, as mentioned in the barrier theme above, under the subtheme of uncertainty.

DISCUSSION

It was a tremendous blow specifically to the education sector on how the COVID-19 pandemic has changed the normal education environment. In fact, educators as well as those involved in the education system need to modify and change the teaching and learning methods significantly as to combat the spreading of the covid infection within the institutions. Keeping physical distance was a major obstacle, among other measures put in place, but it is the most effective public health measure imposed not only in university or schools, but in other sectors as well.

This study was conducted to get the opinion from the students undergoing family medicine posting in a public university in Malaysia. We found that there were three major themes produced from interviews: (1) Facilitators to learning, (2) Barriers to learning, and (3) Rooms for improvement.

With regards to facilitators to learning, four subthemes appeared from the process, and these were Overall Teaching method, Virtual classes, Hybrid classes,

Faculty's administration. There is no doubt that the students still think that hybrid classes were still important to make it through the posting. This is because among the aim of the posting was that they need to acquire the techniques and skill while taking history and physical examination. Without having the chance to examine the real patients, these skills could not be acquired. Many studies had reported about the importance of having real patients to get the skill for the purpose (15).

Unfortunately, the emergence of COVID-19 made this teaching method impossible. Especially, during the interview, we observed the peak of cases in Malaysia had recorded high number of cases of more than 10,000 per day there was movement restriction being imposed and all clinic and hospital did not allow the students to get in to continue with their practical session. Subsequently, the teaching method through virtual was conducted to replace the conventional face to face teaching. The problem not only affected our students, but it has become a major challenge to other institutions in Malaysia and other countries around the world (16–18). Fortunately, our faculty did support the method and agree for virtual learning while the cases were climbing. This was done by delaying the modules which required face to face teaching i.e. clinical contact, to be done when the cases had come down. Therefore, during that crucial period, we did concentrate on the theory part and modify the clinical component via online or virtual methods. These adjustments were also being reported elsewhere (19–21).

Regarding the barriers to learning, we observed the following subthemes: Technology, Distraction Clinical exposure Learning environment and Uncertainty. In this context, one important barrier is about the internet connectivity and the occurring cost. Since the main bulk of the teaching requires good internet connectivity, some students feel that the main problem would be the internet interruption while the virtual teaching is being conducted. Many studies elsewhere experience the same, especially those living in suburban and rural areas (22–24). This logistic challenge has been identified by our faculty and university. Hence, one way to manage the cost was that, during that time, some telco companies had brought down the cost so that it could be affordable to those having financial issues. This was an effort provided by our Student Affairs Division in ensuring all students to be able to have online access without any problem. From the national perspective, the government had instructed many telco companies to upgrade their network to smoothen the connectivity especially in the

rural areas for example the JENDELA and Jalinan Prihatin programmes (25). Other than that, community internet centres were built to cater those students into getting good internet connection, especially for schoolchildren in rural areas (26).

In relation to the theme “room for improvement” of TnL in the Family Medicine course during the COVID-19 pandemic, two subthemes appeared which were Theory classes and Physical examination classes. Again, the importance of having face to face teaching were being repeatedly mentioned. The students still proposed for physical teaching method where the classes could be conducted in the medical faculty instead of having to be done in the clinics and hospitals. Perhaps this could reduce the COVID-19 virus infectivity rate if strictly conducted abiding the SOPs.

Despite many barriers identified, still, there were positive outcomes of this study. Similarly, a study in Sudan have shown that medical students had a positive perception toward virtual learning where 64% of medical students felt that e-learning was the best solution during the pandemic (27). Whereas a large national cross-sectional study in the United Kingdom has suggested that online learning helps students to maximize their independent student learning and peer discussions through team-based or problem-based learning. Additionally, moving on with e-learning is the way forward in the application of virtual consultations which are getting more popular the medical world (28).

To the best of our knowledge, this qualitative study is among the pioneer in addressing the challenges faced by undergraduate medical students during their Family Medicine course in Malaysia at the time of the COVID-19 pandemic. The fact that this was a qualitative study ensured the richness of information obtained.

Our study is not without its limitations. Firstly, the purposive sampling applied may result in selection bias due to lack of random sampling. Secondly, this study was focused on students at only one university, in one state in Malaysia. It was not possible to be conducted in many universities as the teaching method between universities may differ and interstate travel was not permissible at the time of study. Therefore, the findings may not be generalizable to other university students undergoing Family Medicine course across other parts of Malaysia or the world.

Finally, the virtual interview required the students to live broadcast their videos, but some students were intermittently disconnected due to connectivity issues. However, the fact that the interview was conducted as focus group discussion and all students were in the same area and nearby to each other at their hostels, the problem was hastily resolved. By sharing devices, they were happy to contribute their opinions for the

improvement of the course.

CONCLUSION

This study reveals students' views on the experiences of TnL during their Family Medicine course in a public university in Malaysia during the COVID-19 pandemic. Although many barriers were identified, the students were positive and agreed that the limitations of TnL were secondary to the pandemic itself. Though this is the case, room for improvement should not be neglected. With the identified facilitators and barriers of TnL, clinical educators can be better prepared in facing future pandemics, to ensure the TnL methods are more accessible and conducive for the students. It is also without doubt that hybrid teaching, as advocated by the Malaysian Ministry of Higher Education through substitute blended learning, may be the way forward in the near future, even without the pandemic.

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