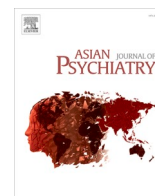




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Short communication

Psychiatric training program during the COVID-19 pandemic: An experience in Iran

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ABSTRACT

Objective: This study aims to report a redesigned psychiatric training program in the internship and the externship courses at Tehran University of medical sciences, in Iran during the COVID-19 pandemic.

Methods: It is a retrospective cohort study which 531 externs and 381 interns enrolled. The students' satisfaction and their exam scores were assessed before and during the COVID-19 pandemic.

Results: Blended learning was used for clinical education which theoretical, case-based discussions; and assessments were provided online. Externs' clinical scores and satisfaction were significantly higher while interns' scores got worse.

Conclusion: E-learning can be effective, applicable and acceptable in clinical education.

1. Introduction

During the COVID-19 pandemic, face-to-face education had an emergence to move to distance and e-learning followed social distancing to control the pandemic (Huddart et al., 2020; Rose, 2020; Lischer et al., 2021; Papapanou et al., 2021; Tandon, 2021). Several studies showed the efficacy and usefulness of e-learning in medical education (O'Doherty et al., 2018; Pei and Wu, 2019; Papapanou et al., 2021). However, e-learning has some limitations in clinical learning particularly in psychiatry necessarily needed to Clinical interviews, communication skills (AlQhtani et al., 2021). Therefore, using e-learning is more challenging in psychiatric training (Khoo et al., 2020). Khoo and her colleagues; applied remote learning to support, teach and engage medical students in the psychiatric course in Australia (Khoo et al., 2020). A psychiatric course was provided with video conferencing and the lecture series (Richards and DeBonis, 2020). According to Dost's study, medical training has transitioned to remote training that has focused on case reports, clinical examination and clinical situations (Dost and Hossain et al., 2020). Flexibility, saving commuting time and safety are some of the e-learning advantages shown by several studies. But students and teachers reported some cons of e-learning too (Coffey et al., 2020; Khoo et al., 2020). Being non-enjoyable, limited interaction, worry about clinical competency, poor infrastructure, and technical problems (Al-Balas et al., 2020; Dost et al., 2020; Papapanou et al., 2021; Shahrivini et al., 2021).

At the beginning of the COVID-19 pandemic in Iran, most universities were closed; and education has transitioned to remote learning. This study aimed to report an experience of redesigning a psychiatric training program in the internship and externship rotation at Tehran University of Medical Sciences and investigate the students' satisfaction and exam scores during the pandemic.

2. Methods

2.1. Study population

This study as a retrospective cohort study was performed in the department of psychiatry of Tehran University of Medical Sciences in the externship and internship course.

The externship is defined as a course in which students start training in the clinical wards in grade 3, and the internship is a work experience program in grade 5.

198 externs and 170 interns who were in the psychiatry rotation before the COVID-19 pandemic (from June 2019 to Jan 2020), were enrolled as group 1. 333 externs and 211 interns after the pandemic (from June 2020 to Jan 2021), were entered as group 2. All students fill a survey about their satisfaction with the course at the end of the rotation. The satisfaction was assessed with 5-point Likert-type questions in two aspects: the clinical training and didactic classes. The scores 4 and 5 were considered satisfactory. Statistical analyses were carried out by

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SPSS version 26.

2.2. Ethical consideration

This is a descriptive study, and ethical statements were not applicable. However, the satisfaction forms were anonymous. All collected data was non-identifiable and would only be used for research purposes.

3. Results

3.1. Changes in the curriculum

We redesigned the psychiatric education program as a consequence of the COVID-19 pandemic. Externship and internship education were announced in a blended way (both remote and face-to-face). During the high prevalence of COVID-19 in Tehran, the courses were provided remote completely.

3.1.1. Changes in externship education in the psychiatric course after the COVID-19 pandemic

- Reducing exposure in clinics and inpatients visits from 30 days to 12 days.
- Adding discussion program about the recorded interviews with simulated patients and case-based discussion sessions in Skyroom platform, synchronous online (5 h).
- Forming a group in WhatsApp with two supervisors where all students should present a case in a voice message and the rest of the students should listen and give comments about the case.
- Participation in morning reports, journal clubs, case reports, presentations in the hospital and A history taking and psychiatric symptomology class in Skyroom platform, synchronous online instead of attending sessions. (30 h).
- All didactic classes were presented offline using audio PowerPoint on NAVID (university learning management system).

After the pandemic, the student assessment was performed by an online written exam (in Exam.tums.ac.ir) at the end of the course, teacher's opinion and presenting a case.

3.1.2. Changes in internship education in the psychiatric course after the COVID-19 pandemic

- Reducing exposure in clinic and inpatient visits from 30 days to 12.
- Night shift in the emergency room similar to the past (4-night shifts).
- Adding classes including anxiety disorders, depressive disorders and psychiatric emergencies using flipped classroom and case-based study method (3 h).
- The didactic training was like externs' programs, and all face-to-face classes were transformed into an online form.

Overall evaluation by the teacher, the online written exam, score of quizzes in the flipped classes, presenting a case and score of shifts in the emergency room were their assessment at the end of the course.

3.2. Satisfaction and exam scores

Externs in group 2, had higher scores in the clinical exam and clinical satisfaction score while their scores in the didactic exam were lower. The overall satisfaction rate was 85.1% that is significantly more than group 1 (P value = 0.001). (See Table 1).

The didactic and clinical scores of interns were significantly higher in group 1 (P value = 0.001, 95% CI: -0.15, 0.56, P value = 0.000, 95% CI: 0.55, 0.95) but the satisfaction with clinical education was significantly more in group 2 (Table 2).

4. Discussion

The psychiatric curriculum of Tehran University of Medical Science has to move to blended learning and sometimes completely remote learning after the COVID-19 pandemic. Similar to the current study, medical education was provided completely remote in some other studies (Al-Balas et al., 2020; Khoo et al., 2020; Lischer et al., 2021).

Videoconferencing with patients as an alternative to clinical exposure was not feasible in our center due to the lack of technological facilities and the confidentiality of patients' information (Khoo et al., 2020). Therefore, like other studies interviews with the standard patients (SP) who simulated mental illness presentation were used instead of the clinical experiences (Khoo et al., 2020).

4.1. Externs' outcome measures in redesign program

In this study, after implementing blended learning, externs obtained higher scores in the clinical assessments, reporting more satisfaction with their clinical training. In our setting, the clinical psychiatric course was provided in a tertiary center (Roozbeh Psychiatric Hospital) where medical students were only passive observers before the COVID-19 pandemic. In the redesign program, they have participated in active clinical training instead of passive clinical exposure in outpatient and inpatient settings that can explain the higher scores in the clinical training assessments; and their satisfaction. But all didactic training was provided offline without any interaction, non-verbal cues and supervision which can explain the lower scores in the didactic exams as mentioned in other studies (Al-Balas et al., 2020; Khoo et al., 2020).

In other studies, the overall satisfaction rate was reported between 26.8% and 46.3% lower than face-to-face teaching (Al-Balas et al., 2020; AlQhtani et al., 2021; Khawar et al., 2021). In this study, the overall satisfaction rate in externs was 85.1% that was significantly higher than before. In this study, blended learning and remote clinical training were used but in other studies, they only assessed the satisfaction of remote education as some studies showed a combination of these methods is more effective (AlQhtani et al., 2021).

4.2. Interns' outcome measures in redesign program

Interns took lower clinical and didactic scores in their assessments and reported lower satisfaction during the COVID-19 pandemic. Only three case-based discussion classes were added to their schedules alternative to the reduction of clinical exposure, and all theoretical training was provided offline using the NAVID software. Therefore, the

Table 1
Mean (St. Deviation) of theoretical, clinical scores and satisfaction with training in externs.

Externs	Number (531)	Gender (male)	Didactic score (from 10)	Clinical score (from 10)	Response number to satisfaction form	Satisfaction with didactic trainings (from 5)	Satisfaction with clinical trainings (from 5)	Overall satisfaction
Group 1	198	94	8.20 (1.35)	9.46 (0.89)	160 (68.38%)	4.22 (0.99)	3.92 (1.10)	77.7%
Group 2	333	156	7.89 (1.49)	9.67 (0.50)	74 (31.62%)	4.29 (0.87)	4.36 (0.75)	85.1%
<i>P</i> -value	–	0.193	0.015	0.005	–	0.099	0.005	0.001

Table 2

Mean (St. Deviation) of theoretical, clinical scores and satisfaction with training in interns.

Interns	Number (382)	Gender (male)	Didactic score (From 6)	Clinical score (from 14)	Response number to satisfaction form	Satisfaction with didactic trainings (from 5)	Satisfaction with clinical trainings (from 5)	Overall satisfaction
Group1	170	95	4.85 (0.90)	13.53 (0.88)	125 (73.53%)	4.26 (0.85)	4.29 (0.819)	83.6%
Group 2	211	81	4.49 (1.15)	12.78 (1.04)	45 (26.47%)	4.25 (0.84)	4.12 (0.857)	82.1%
P-value	–	0.168	0.001	0.000	–	0.860	0.005	0.487

rate of active education was reduced in this period. In addition, burnout, mental issues during covid-19 and economic problems in our society may affect the students' motivation negatively (Shariati et al., 2002; Nakhostin-Ansari et al., 2020).

This study is a retrospective cohort study and was performed at Tehran University of Medical Sciences. Therefore, the results could not be generalized to all medical schools in Iran. The low response rate to fill the satisfaction forms (Tables 1 and 2) is another limitation.

We faced many challenges in implementing the changes due to factors related to the teachers, students, technological barriers and course issues similar to other developing countries (O'Doherty et al., 2018; Al-Balas et al., 2020; Dost et al., 2020; Khoo et al., 2020; Khawar et al., 2021; Shahrivini et al., 2021).

At the teachers' level, resistance to online training, burnout due to low interaction and reciprocity, and unfamiliarity with online teaching techniques should be mentioned. At the students' level, lack of motivation, experiencing mental health problems, lack of social contact in remote learning and environmental distraction should be targeted. Technological barriers, including lack of appropriate platform for video conferences, poor internet bands, and lack of supporting system was challenging. In addition, we did not prepare any educational materials for remote learning due to our limited resources.

In conclusion, Clinical training is one of the most challenging parts of e-learning, especially in psychiatry. This study showed that e-learning could improve the clinical score and satisfaction with training in medical students. Training the teachers and medical students and having a good infrastructure including internet connectivity, platform and learning management system is necessary to reach this goal. Considering these circumstances, e-learning could be a good choice during the COVID-19 pandemic.

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Ethical consideration

Informed consent was obtained from all participants included in the study. The satisfaction forms were anonymous. All collected data was non-identifiable and would only be used for research purposes.

Authors' Contributions

AM developed the main idea. ZM and AM wrote and review the manuscript. EK analyses the data.

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Declarations of interest

none.

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