

# USING BLENDED LEARNING FOR ANATOMY EDUCATION IN COVID-19 ERA: DISCOVERING THE READINESS AND EXPERIENCES OF STAFF MEMBERS AND STUDENTS

Iman Hassan Mahmoud Diab, Wafaa Abdel Rahman Ahmed,\* Mennatallah Hassan Rizk Ismail,\*\* Marwa Mahmoud Mady\*\*

Department of Medical Biochemistry, Anatomy and Embryology,\* Medical Education,\*\* Faculty of Medicine, Alexandria University, Alexandria, Egypt.

## Introduction

The world has been traumatized by the effects of the corona virus disease 2019 (COVID-19). Pandemic has driven the fastest changes to higher education across the globe.<sup>(1)</sup>

Anatomy faces some unique challenges; anatomy is a three-dimensional subject that requires a sound understanding of the relationships between structures, often achieved by the study of human cadaveric material, models, and virtual resources.<sup>(2)</sup>

## Aim of the Work

The aim of this study was to describe adaptations in anatomy education in anatomy department during Covid-19 pandemic.

## Material and Methods

**Study design:** A descriptive cross-sectional study was adopted.

**Study setting:** Anatomy Department, Faculty of Medicine, Alexandria University.

## Results

### Adaptations related to anatomy teaching in response to COVID-19

COVID -19 pandemic imposed unexpected changes to anatomy education practice as the medical students lost access not only to cadavers, but also to several other learning modalities like models, museum specimens and bones due to lockdown.<sup>(3)</sup> The digital switchover was the only option not only for Egyptian anatomists but also throughout the world.<sup>(4)</sup>

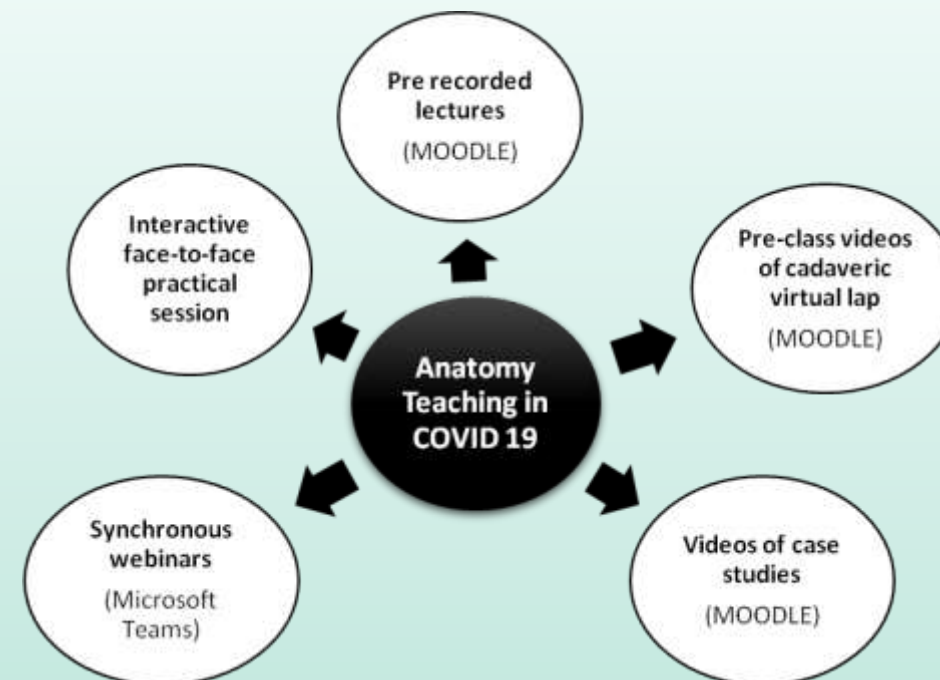
### Adaptations in Alexandria Faculty of Medicine (AFM)

To face these challenges anatomy department in Alexandria faculty of medicine adopted blended learning approach.

Anatomy education is an integral part of Pre-clerkship phase. The total number of students of the second year were 2096 (in the academic year 2020 – 2021). Anatomy teaching consists of large group lectures and practical sessions. However, due to COVID-19, anatomy teaching was inevitably replaced by Blended learning, synchronously or asynchronously through a learning management system (LMS) called MOODLE and Microsoft Teams. Pre-recorded videos of lectures were uploaded to LMS. Providing all lecture materials to students in advance of each class. In addition, portal provides discussion forum, which is considered as connection between the students and staff members any time.

### Adaptations of cadaver dissection laboratories in response to COVID-19

Use of pre-class videos of cadaveric virtual lab (anatomage videos), animation videos and revision videos. Students were provided with videos of clinical patient cases, before the interactive face-to-face practical session. Face to face practical sessions were planned after the online sessions.



**Figure:** Anatomy teaching during COVID 19 in Alexandria Faculty of Medicine.

## Conclusion

COVID -19 pandemic imposed unexpected changes to anatomy education practice.

Adaptations in Anatomy Education during Covid-19 in Alexandria Faculty of Medicine E-learning unit (ELU) offers many benefits for students. It facilitates the interaction with students by providing asynchronous and synchronous tools such as official e-mails, forums, chats, video conferences and learning management system LMS (MOODLE).

## References

1. Nicola M, Alsafi Z, Sohrabi C, Kerwan A, Al-Jabir A, Iosifidis C, et al. The socio-economic implications of the coronavirus pandemic (COVID-19): a review. Int J Surg 2020; 78: 185-93. PUBMED CROSSREF
2. Agnoletto, R., & Queiroz, V.C 2020 COVID-19 and the Challenges in Education CEST, 5 (02)
3. Pather N, Blyth P, Chapman JA, Dayal MR, Flack NA, Fogg QA, et al. Forced disruption of anatomy education in Australia and New Zealand: an acute response to the COVID-19 pandemic. Anat Sci Educ. 2020; 13: 284-300.
4. Srinivasan DK. Medical student's perceptions and an anatomy teacher's personal experience using an e-learning platform for tutorials during the COVID-19 crisis. Anat Sci Educ. 2020; 13: 318–9.