Mobile Learning in Medical Education: It's Time to Consider Solutions for Ethical Challenges During Post-COVID

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Dear Editor,

During the lockdown because of the COVID-19 crisis, we have seen that m-learning was a pioneering solution in education. Medical universities were closed, while education continued normally at undergraduate levels, forcing students to use their mobile devices to attend class (1). M-learning refers to any type of learning using mobile devices in which students engage in the learning process in "anytime, anywhere" settings (2).

The utilization of m-learning during the COVID-19 era caused various opportunities and challenges for medical education. M-learning enables learners to access different platforms without any limitation to time and place to enhance their technical skills and facilitate collaboration. Teachers can also personalize their instructional design through m-learning and help students move towards self-regulating learning (2, 3).

In addition to opportunities, it also has challenges. The experience of medical education teachers (we) shows one of the most important challenges is the moral challenge in medical education (4). Learning in the clinical context creates complexity for students about how and when they are ethically permitted to use their mobiles at the patients' bedsides.

On the other hand, different types of learning methods guided by the learner are the only suitable way to advance the theory towards practical use. For this purpose, different methods have been presented in the learning processes, which are less used in our clinical setting. Mobile learning, especially in clinical education, can involve the learner in the learning process and enable him to deepen learning and reduce the gap between theory and practice.

In this pandemic, a large number of clinical and non-clinical faculty members used mobile learning. As a result, their experiences in managing the ethical challenges of mobile learning will help us to consider these challenges in the instructional design of this strategy. Therefore, we interviewed seven faculty members who had experience teaching through mobile learning in medical education.

In this regard, faculties with respect to ethical challenges stated strategies to manage these challenges in the COVID-19 pandemic, which are as follows:

One of the most important steps in managing the ethical challenges in mobile learning is to develop a guideline for better mobiquette implementation. In addition, the students should inform their colleagues that they use mobile phones to retrieve clinical information and reassure them that their use is patient care related. So, they should share information with the patient on the mobile screen so that patients can be potentially informed about their care. Another consideration is that medical universities provide internet access for all students at the hospital. This issue causes medical students to have access to learning resources fairly.

What's more, a strong technical support team is needed to access and manage the information stored by learners and faculty and to recover information in the event of a device failure.

Another step is maintaining the confidentiality of patient information, which is very important, so clinical

data should never be stored on learners' devices. Access to clinical records via a mobile phone, except for a standard browser, should have adequate security protection. Two authentication factors (password and fingerprint) are recommended.

In the sixth step, another challenge is that tablets and mobile phones are not immune to virus attacks. So, it is recommended to use a preventive method for device security, which can include updating the operating system and software and using valid antivirus programs.

The last one, insecure networks, especially free public Wi-Fi networks, should not be used for data security.

Footnotes

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