

Teaching in Clinical Rounds When Driven by the COVID-19 Pandemic

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Dear Editor,

The spread of the Corona virus (Covid-19) has already taken on pandemic proportions, affecting many educational systems and the medical community at large around the world (1). In this respect, a global response to prepare educational systems worldwide is necessary.

Medical schools are at the forefront of the fight against the Covid-19 in terms of providing the care needed for the patients afflicted by the virus as well as preparing medical students for their professional roles as medical doctors in the future. But the Covid-19 pandemic has engulfed all the educational institutes and universities by the extent not to be able to run their classes and being unable to keep abreast of any developments for remote learning options as far as possible. In addition, many students have been sidelined due to Covid-19 pandemic and this situation is exacerbated for the educational systems which cannot keep in line with the new methods of teaching and learning.

The current situation is critically important for medical students as gaining competence with reference to knowledge, attitudes and psychomotor skills necessitates radical changes during the pandemic. Medical students as the cornerstone of the health care team need education on clinical rounds when it comes to patient care and mastery over psychomotor skills (2,3). In this regard, medical teachers should provide education to medical students by holding clinical rounds using an approach which is not

only innovative and fascinating but also to be safe both for students and patients not to endanger their wellbeing.

According to the literature concerning the importance of teaching medical students on rounding practices as many skills such as history taking, physical examination, communication, professionalism, etc. are learned through the interaction between the medical teacher and the students at the bedside (4), there is a need to shift away from the traditional method of teaching and learning to more robust and flexible methods in this period of time. But the question is: "what is a practical method for teaching on rounds when students cannot be present at the bedside during the Covid-19 pandemic?" "Is it really feasible to provide education especially related to bedside rounds remotely?"

When thought carefully, methods of instruction which are technology-based and distant in which they simulate the real life can become the mainstream in medical education. The use of technology in support of medical education needs creativity and adaptability. As many educational systems are grappling with the Covid-19 pandemic, here, we introduce and navigate a little about the three methods which can be utilized to help medical students gain the knowledge and skills as the pandemic retains an aura of despondency.

One of the methods of teaching in clinical rounds during the Covid-19 pandemic can be the use of virtual rounds.

This technology-enhanced platform can be operationalized by a medical teacher equipped with a webcam on his/her protective hood and a cellphone underneath the hood holding the clinical round while students are at a place far away from the ward to have the live clinical round. This novel means of interaction has been used by the Johns Hopkins educators during the Covid-19 pandemic (5). This platform assists medical teachers unfold medical processes and provide the opportunity for all students to see the patient, ask their questions and be invited by the medical teacher to elaborate on the patient's problems and debate diagnoses as well.

If most of learning is expected to happen concerning students' knowledge and skills at the bedside during the Covid-19 pandemic, there is a need for more cooperation on part of the medical teacher. With regards to this issue, the medical teacher should provide the necessary data concerning patients in the ward for students to help them write up a patient's history and physical exam similar to how they would tackle the task back at the hospital. Therefore, the use of social networks can facilitate the interaction required between the medical team, namely the teacher and the medical students. Through such interactions and under the supervision of the medical teacher, the case will be unfolded and students add progress notes and real-time feedback and reflection can be provided during this short "virtual round". Although there is no patient interaction, students learn more regarding analytical and communication skills.

The last but not least, another method to overtake the Covid-19 pandemic is the use of online meetings by using social networks to help medical students practice presenting cases. Collaborative learning through Case-based Scenarios (CbS) is an excellent way to gain the required knowledge and develop decision-making skills based on patient cases. The case presented must be valuable and aligned with learning outcomes (6). For instance, "Students get a case like, "Mr. X is a 60-year-old man with chronic, recurrent headaches and a fever of 90". In this regard, students have discussions for the potential causes and alternative solutions. This facilitates group dynamics as students type messages or exchange ideas by sending their voice to share their thoughts.

In summary, COVID-19 is going to be with us for a

long period of time as it seems, therefore, we must adapt ourselves to this situation and cling to innovative and riveting methods of teaching, online gathering of students and teachers, even when it comes to teaching students at the bedside. Virtual rounds with the medical teacher as the focal point transmitting the knowledge and skills needed for students by setting the scene of the bedside in virtual terms, and the involvement of medical students in virtual learning by elaborating on the progress note as well as the use of case-based scenarios are three methods which can help us in the fight against Covid-19 in terms of educating medical students. We should bear in mind that the learning experiences concerning a patient's medical history or learning hands-on procedures are not fully addressed and taken into account on the premise of the virtual rounding practices. Therefore, these skills can be only mastered through clinical encounters in real world. It is important to declare that the above-mentioned methods might have ethical or legal limitations that should be taken into account in the virtual clinical round accordingly.

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