

Virtual Learning in Radiology during COVID-19 Pandemic- Opportunity or Challenge?

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Introduction

“Every challenge you face today makes you stronger tomorrow. The challenge of life is intended to make you better, not bitter.” — Roy T. Bennett, the Light in the Heart Every crisis brings deep challenges and opportunities for transformation which ultimately leads to better future. The World Health Organization has declared Covid-19 as a pandemic that has posed a contemporary threat to humanity, forcing global shutdown of several activities, including educational activities, which resulted in tremendous crisis-response migration of institutions with online learning serving as the educational platform. Radiology practices are facing unprecedented challenges not only in how they are providing care to patients but also in how to continue to educate the next generation of radiologists. Although the priority is on providing timely and high-quality imaging to patients, especially those infected with coronavirus disease 2019 (COVID-19), there is still a need to maintain our educational mission. For many institutions, remote learning has become the solution, although in reality, many radiology educators lack the expertise and experience using these technologies effectively. This article describes the challenges experienced during this pandemic and attempts made to transform the opportunities for upcoming clinical radiologists.

Discussion

The coronavirus pandemic has forced clinical practitioners to determine different ways to conduct learning platforms while maintaining social distancing and a sense of normalcy. Institutions, involved in training the next generation of radiologists, had to use alternative teaching methods to maintain the standard of education. Therefore, virtual education has been a turning point in clinical education in Pakistan during COVID-19. For many years radiology education has revolved around interactive, film-based, small group teaching, didactic lectures and informal tutorials during reporting sessions. With the digital revolution in radiology continues to advance rapidly, there are a number of interesting developments within radiology informatics which may have a significant impact on education and training of radiologists in the near future. These include extended functionality of handheld computers, web-based skill and knowledge assessment, standardization of radiological procedural training using simulated or virtual patients, worldwide videoconferencing via high-quality health networks [1].

Virtual learning offers many benefits, such as accessibility from anywhere at any time, asynchronous discussions with classmates, immediate feedback on tests, and flexibility. However, despite the benefits of virtual learning, it is not always easy to implement [2]. Low internet bandwidth and technical difficulties are the barriers to use online courses for both students and teachers which lead to less engagement and disturbance during online lectures. Over engagement and staring closely at the screen for hours without taking break is monotonous and may potentially lead to wide range of health problems including visual discomfort, exhaustion, and muscle or joint aches. Lack of socialization and isolation may ultimately result in decreased academic achievement and even mental distress [3].

Literature data shows that with the constant development of technology and global spread of computer networks, in particular of the Internet, the integration of multimedia and interactivity introduced into electronic publishing has allowed the creation of multimedia applications that provide valuable support for medical teaching and continuing medical education, specifically for radiology. Such technologies are valuable tools for collaboration, interactivity, simulation, and self-testing. However, not everything on the World Wide Web is useful, accurate, or beneficial: the quality and veracity of medical information on the World Wide Web is variable and much time can be wasted as many websites do not meet basic publication standards [4].

Conclusion

The virtual education requires refinements in terms of reliable and affordable internet, proper implementation of infrastructures, advancement in technologies and provision of well guided technical supports to all so that it can be well utilized, improvised and adapted in future which could ultimately enhance the learning process and broaden the scope of innovative ways of successful learning.

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