Tele-education for hepatology residents in Bangladesh during the Covid-19 pandemic

To the Editor,

Since the beginning of the pandemic of coronavirus disease 2019 (COVID-19), adoptive measures have been taken in Bangladesh as elsewhere in the world, trying to contain social transmission of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2). One important measure in this direction was the closing down of educational institutions, where the likelihood of physical contact is very high and, therefore, there is a high risk of SARS-CoV-2 transmission. In Bangladesh, all educational institutions are closed since March 17, 2020 on the ninth day of detection of first three COVID-19 cases in the country.[9] As the nation gradually proceeds toward easing ongoing lock-down, it appears that the educational institutions are unlikely to open anytime soon. This is also the strategy that is being adopted across the globe where lock-down is gradually being relaxed in a step by step manner.

Innovative measures are being implemented to keep academic activities ongoing in Bangladesh. Bangabandhu Sheikh Mujib Medical University (BSMMU) is the first and as of now the only functioning medical university of the country.[9] It is a public university where post-graduation courses are offered in almost all disciplines of medical science. Doctor of Medicine in Hepatology offered by this medical university is the first post-graduation course in Hepatology in the Indian subcontinent which has been running successfully since the early 1990s. The university adopted a residency program for post-graduate teaching in 2009.

Since the COVID-19 pandemic began, academic activities of the Hepatology Department of this university has been affected like it’s all other departments.

In order to sustain academic activities of Hepatology Department of BSMMU, Dhaka, we have opted to online teaching and have collaborated with post-graduate institutes as well as professional bodies at the national and international levels. These include North Shore University Hospital, New York, USA, Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow, India, Ganga Ram Institute of Postgraduate Medical Education and Research (GRIPMER), New Delhi, India, Indian National Association for the Study of the Liver (INASL), Indian Society of Gastroenterology (ISG), and Forum for the Study of the Liver, Bangladesh. In the pre-COVID-19 era, we only had classes for the residents of our department where physical presence was mandatory. Following the introduction of tele-education, the extent and spectrum of academic activities of our department have increased during this ongoing COVID-19 epidemic.

Our tele-education format consists of sessions of 1 h duration on Zoom™ platform in PowerPoint. Faculty members include eminent academicians from home and abroad. All sessions are performed in English. At the end of each session, a few additional minutes were assigned for questions and comments. There has been an increase in the frequency of classes from pre-COVID-19 pandemic times and our residents are getting the opportunity to attend these classes regularly [Figure 1].

A review of literature reveals that there are examples of tele-education for postgraduate medical teaching. This method has been successfully implemented through collaboration by the University of Miami Leonard M. Miller School of Medicine, USA in collaboration with Universidad Peruana Union, Lima, Peru, Massachusetts General Hospital, USA, and Mbarara Regional Referral Hospital, Uganda.[2] Shanghai University Hospital, China and Kyushu Hospital and Tokai University Hospital, Japan have also implemented tele-education.[2] Tele-education has been used by different post-graduate medical institutes for training residents of different specialties including Internal Medicine, Surgery, Gynecology, and Obstetrics to name a few before the outbreak of COVID-19. And during this ongoing COVID-19 pandemic, Brook Army Medical Centre, USA and University of California at San Francisco, USA have reported that they have adopted to tele-education for maintaining education of their residents of Surgery.[3]

Tele-education appears to be a very useful method of teaching. A survey revealed that 88% of Internal Medicine residents from Calgary, Canada benefitted from tele-education.[4] Another systemic review conducted by the New South Wales Ministry

![Figure 1: Academic classes for residents in Department of Hepatology, BSMMU](image-url)
of Health, Australia also shows that the learning outcomes of tele-education are not only comparable to traditional teaching but also have high acceptance by healthcare professionals.\(^5\)

It is expected that Family Medicine teaching will also benefit immensely from tele-education. This will allow academicians to reach out to post-graduate students of Family Medicine across the country. This will also improve the quality of teaching as leading academicians across specialties from different reputed institutes and also different countries can be involved in post-graduate Family Medicine teaching. At the same time, this will allow precious time and resources to be spared, as this will reduce the need of travelling for the post-graduate students of Family Medicine.

We plan to continue tele-education in our department in the post COVID-19 era, so that the Hepatology residents of BSMMU would continue to obtain clinical information from Hepatologists of different realities. In addition, tele-education approach of teaching allows the receiver to record the sessions and they can benefit from it again and again after the sessions are expired. Moreover, in most developing countries, traffic jam and other factors also highlight the importance of tele-education via electronic system.

Financial support and sponsorship
Nil.

Conflicts of interest
There are no conflicts of interest.

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References
1. COVID-19 pandemic in Bangladesh. https://en.wikipedia.org/wiki/COVID-19_pandemic_in_Bangladesh.
2. Gonzales-Zamora JA, Alave J, Lima-Corvino DFD, Fernandez A. Videoconferences of infectious diseases: An educational tool that transcends borders. A useful tool also for the current COVID-19 pandemic. Infez Med 2020;28:135-8. Ahead of print Jun 1.
3. Chick RC, Clifton GT, Peace KM, Propper BW, Hale DF, Alseidi AA, et al. Using technology to maintain the education of residents during the COVID-19 pandemic. J Surg Educ 2020;77:729-32.
4. Stokes W, Ruzycki S, Jainarine R, Isaac D, Cole J. The Canada-Guyana medical education partnership: Using videoconferencing to supplement post-graduate medical education among internal medicine trainees. Can Med Educ J 2017;8:e18-24.
5. Tomlinson J, Shaw T, Munro A, Johnson R, Madden DL, Phillips R, et al. How does tele-learning compare with other forms of education delivery? A systematic review of tele-educational outcomes for health professionals. N S W Public Health Bull 2013;24:70-5.

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Received: 28-05-2020
Accepted: 03-07-2020
Revised: 11-06-2020
Published: 25-08-2020

How to cite this article: Mahtab MA, Huq F, Alam SM, Das DC, Uddin MH, Islam SB, et al. Tele-education for hepatology residents in Bangladesh during the Covid-19 pandemic. J Family Med Prim Care 2020;9:4476-7.