

Expert Opinion

Challenges as Opportunities: Adapting Tele-Education for Physicians Collaborative Response to COVID-19 Pandemic

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Abstract

COVID-19 pandemic challenge provided us with impetus to innovate and provide rapid solutions. We have successfully launched multiple tele-education online learning programs through a Pakistani diaspora and local physician collaborative that have been extremely effective. The programs were launched from the platform of Association of Physicians of Pakistani Descent of North America (APPNA) and include Daily COVID-19 Webinars, Weekly Case Discussions, online discussion groups, themed webinars on psychosocial health of physicians, ventilator management, critical care nursing and primary care. So far 40 webinars have been hosted for over 1800 physicians with multiple institutional partners and are developing online short courses on these topics. We have used this as a learning opportunity, creation of new collaboration with Pakistani institutions and diaspora organization. We take this challenge as an opportunity to rapidly learn successful ways and avenues of collaborating in future with our Pakistani physician partners in Pakistan.

Introductions

Since the beginning of COVID-19 infection in Pakistan there was an expectation that the infection will spread rapidly and can overwhelm healthcare system with burdening of the physician's workforce in general. Clearly, the few specialists in health care areas of critical care, infectious disease and pulmonology that exist in Pakistan, that are providing care to the very sick, will likely not be enough. That will lead to enhanced responsibilities for general physicians to handle the burden of COVID-19 infection and take charge of educating the general patient population, answering the questions, elevating their anxieties, managing mild non symptomatic or mildly symptomatic patients who may not need a hospitalization or ICU admission. This required that physician workforces to be properly educated and informed about COVID-19. This was complicated by the fact that in March 2020, most countries were still figuring out the details of how to respond to the infection properly and most of the science was at very early stage and rapidly evolving leading to confusion and often misinformation.

By March 2020, there was a rising burden of the infection in United States and Association of Pakistani Physicians of North America (APPNA) members were at the forefront of response and research on this pandemic, while things were still relatively calm in Pakistan. (1) Many of the APPNA membership were already leading efforts to manage these patients and all the APPNA physicians were engaged in their institutional policy making, decision making, education awareness campaign of how to handle the surge and what do they need to know in terms of performing safe practices and continuing to see their patients in a safe way. As we were learning and growing ourselves.

We took this challenge and found this to be a perfect opportunity to share these information and discussions that we were having with our colleagues in Pakistan to pre-empt the incoming chaos and educate our Pakistani physician workforce, especially through our own experiences, debates and trials & errors.

APPNA Committee on Medical Education called MERIT (Medical Education, Research, International

Training and transfer of Technology) established a US-Pakistan COVID-19 Physicians collaborative and launched by end of March 2020 a series of educational webinars with the format heavily designed or directed towards question and answers for discussions and debate.² In this paper we summarize our efforts and outcomes.

Methods

A Daily webinar series was launched on March 30th, 2020 using Zoom® webinar platform scheduled at 8 AM Monday morning in Pakistan and Sunday night for US. (3) The webinars were streamed live on Facebook® initially and then YouTube® and recordings were made available on our YouTube® channel (see Figure 1).⁴

The one-hour webinar consisted of a rotating schedule of a Sub-specialist Speaker with experience on treating COVID-19 patients. The speaker provided a brief 20-minute overview of the new updates in their Speciality related to COVID-19 and personal experiences of cases. This was followed by a discussion with a panel of 4-8 physicians from various subspecialties with the participants. The forum was initially dominated by US experts given high number of cases in US compared to Pakistan initially and gradually with increasing exposure within Pakistan, more local experts participated as speaker and on panel.

The daily webinars were converted to weekend webinars on start of Ramadan to match the fast timing (after Sehar) on Saturday and Sunday. After Ramadan the webinars were changed to once a week Sunday webinar, given the increased burden of patients in Pakistan. An additional Saturday session on Case discussion was started in June where local institutions are taking turn presenting their cases with discussion with experts on advanced management with 3 completed sessions so far.

We also introduced special themes to the webinars based on local needs of physicians. This included three webinar series on Psycho-social Health of Physicians and providers in Pakistan with stress of working within pandemic lead by large panel of Psychiatrist leaders within Pakistan and Pakistani diaspora abroad. Another session focused on Trainees (residents, post graduate trainees, house officers and medical students) is planned and a Nursing focused Webinar series is about to launch.

The webinar series also lead to plans for short courses with focus on critical care of COVID-19 patients by physicians and a separate course for critical care nursing. Another short course on use of bedside Ultrasound use is also planned for launch for July 2020.

We previously partnered with pharmaceutical industry to have the information spread to more

physicians thorough various social media platforms. We have now partnered with Yaran-e-watan® program from Ministry of National Health coordination and regulation for widespread information on the webinar series to all government avenues.⁵

Results

The Series have been highly successful and impactful in reaching to large number of physicians especially in primary care who were struggling with questions and confusions about this disease.

The live Zoom sessions has over 1800 registered participants that get invitation for our webinars on their email. We have had consistent attendance ranging 50-90 per session with average of 65/session so far with our 37 webinars completed (See Table 1).

We used Social media platforms to enhance our reach and our Facebook® posts reached to 143837 people since March 31st with 6415 people engagement. All 37 sessions have been posted on YouTube® Channel (4 have over 5000 views with 240 subscribers. Visitors to our APPNA MERIT website² increased to over 3000 since the webinars started. Discussions groups were started on WhatsApp® with currently 5 different WhatsApp groups with over 350 active participants.

Each session is very active and engaging with multiple questions answered. We have created an online repository of the shared resources and information (See Table 2) available to all participants. (6) Many institutional leaders have partnered with us for sessions related to the covid-19 pandemic both in Pakistan and US.

Discussion

The webinars grew with ideas forming shape gradually, and a lot of algorithms and decision tools were shared between the experts and gradually speakers from Pakistan were invited to come and speak their experiences from places which were already seeing a significant increase number of COVID-19 patients. This continued all the way in to Ramadan and at the start of Ramadan, the format was changed to have two such sessions every week on Saturday and Sunday with the timing adjusted to match the Ramadan timings, timing of fast. Now in post Ramadan status, the webinars have continued although they have now been decreased to once a week opening up the second day of the week to other specialized theme of education and discussions.

The daily webinar series, although was done mostly at random in the beginning gradually started to focus on certain themes for each session, such as family practice and primary care, public health, critical care management, Ventilator management, cardiac issues and other heart related diseases and so on. And now

we have introduced further themes with some series of webinars integrated into these ongoing weekly COVID-19 webinars by bringing in expert teams and expert panels to handle those topics. The prime example of that will be our series of webinars on psychosocial issues of front line workers providing health care to COVID-19 patients and going through the stresses and challenges and how they're handling and coping themselves. These webinars are led by multinational team of psychiatrists with more than 15 leading experts on psychiatry such as the newly elected president of World Psychiatric Association. This project is now following up with Webinar on mental health of Medical trainees including medical students and Post-graduate trainees with stresses of working in pandemic. Other such themes are also evolving, including an ongoing discussion on providing some education on ventilator management for those physicians being asked to manage ventilators without having proper training or experts.

In June 2020 we started with Clinical Case Discussion of patients in Critical/Intensive Care Units (ICU) due to increasing patient burden and newly proven therapies. These weekly webinars are done in partnership with a local institution on a rotating schedule, with local ICU team presenting their cases to a panel of 3-5 experts from US to discuss lessons learned and appropriate use of therapies with current guidelines and both sides learn from each other.

Another new project is now focusing on nursing care in Intensive Care units (ICU) for these COVID-19 patients because of increasing patient demands. There have been dire nursing shortages and newly graduated nurses are being reassigned to critical care units, sometimes without time to provide formal or proper educational training to these nurses. We have partnered with the leading institutions and nurse leaders in Pakistan and brought in Pakistani diaspora nurse leaders from U.S., Middle East and United Kingdom to one page to develop a focused course on critical care management of COVID-19 patients for these nurses. We are developing a curriculum for COVID-19 followed by general education on critical care in addition to starting a dedicated nursing webinar in addition to our ongoing weekly webinars.

And the last development is an ongoing effort from Ministry of Health through its Yaran-e-Watan program to streamline all these various physician webinars being offered by Pakistani diaspora organizations in various countries, including United Kingdom and Australia to one page so that there is more cohesion between the topics selection,

speakers, panellist and so that more can be achieved through a combined effort. We are very much supportive of such collaborative initiatives and are working quickly to form an alliance with various Pakistani diaspora organizations with APPNA MERIT and work with Yaran-e-Watan to bring these educational resources to larger and more targeted audiences of physicians who are in the most need of it.

Conclusion

We present success of rapid adaption of online learning and tele-education in collaborative efforts with engagement between Pakistani diaspora and local physicians and institution leaders. These efforts of can form the basis of an ongoing process of learning and transfer of knowledge and skills bilaterally. We should current challenges as learning opportunities and try various methods and avenues, not only for the urgent needs but also to provide a fast brewing environment to speed up innovation on education. We can achieve within months what would have taken years to achieve otherwise. We are interested in the long term advantages and opportunities that this brings, which have even far bigger impact on patient care.

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