

# Plastic Surgery Education during the COVID-19 Outbreak: Leveling the Playing Field

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Sir,

Since the global outbreak of coronavirus disease 2019 (COVID-19), the state of plastic surgery education has rapidly undergone a paradigm shift.<sup>1</sup> To fight the war against COVID-19, plastic surgeons have stopped nonessential procedures to preserve vital resources and begun to manage critically ill patients in intensive care units.<sup>1</sup> In addition, many countries around the world have strongly recommended or executed orders to ban public gatherings, leaving plastic surgery education hanging.<sup>2,3</sup> So, how do we train ourselves, especially the residents, in this world of “social distancing”?

Before the COVID-19 era, plastic surgery education curriculum typically consisted of operating, didactic sessions, online learning modules, and conferences. In North America, plastic surgery trainees routinely gathered a few times during a week with their faculty for didactic sessions and supplemented their knowledge with online modules.<sup>4</sup> In addition, large residency programs allowed their trainees to be exposed to different fields of plastic surgery, but for smaller programs, there was a limit of exposure. The learning experience for trainees was even narrower in developing countries, especially those with limited resources to perform variety of surgeries and established education infrastructures.

In more developed countries where physical attendance of didactics became impossible, many plastic surgeons have rapidly started to give lectures using virtual platforms such as Skype, WebEx, or Zoom (Table 1). Multiple plastic surgeons have already given several lectures on the American Society of Plastic Surgeons Virtual Grand Round Series and the International Microsurgery Club (Fig. 1)<sup>5</sup> with high attendance (up to 520 participants). These webinars can be accessed using a computer or a smartphone. Anyone with the webinar link can participate, ask questions using text or their microphone, and record lectures with permission. For the presenters, this type of education gives them the opportunity to share knowledge with a greater number of audiences, increasing the efficiency of education. Although this method

of learning is relatively new for the trainees at North America, it has been widely accepted in the developing countries already to seek knowledge and guidance. For some, this is the only method to reach out to international experts and discuss difficult cases. However, virtual platforms carry potential security risks, such as recording without permission, “meeting hijacking,” and possible breach of patient privacy.

As the fight against the COVID-19 continues, plastic surgery trainees around the world will continue to learn virtually. Whether we want to or not, this crisis has nudged and pushed us to change the way to train. This phenomenon might be a good opportunity for those in the developed countries to learn how to adapt when resources are limited and seek knowledge when it is not readily available. Furthermore, it can be an opportunity to encounter new ideas and nonconventional techniques outside one's comfort zone. For the trainees at the developing countries, this is an opportunity to further learn and bounce off ideas with trainees around the world. Most of all, this is the time to support each other and to share knowledge with each other. The time has truly come to level the playing field and to allow healthy competition that will ultimately lead to evolution of plastic surgery. Furthermore, virtual lectures may continue to stay after the outbreak because they can efficiently and effectively bring global plastic surgeons together. Who knows what surprising innovations can this lead to?

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## DISCLOSURE

The authors have no financial interest to declare in relation to the content of this article.

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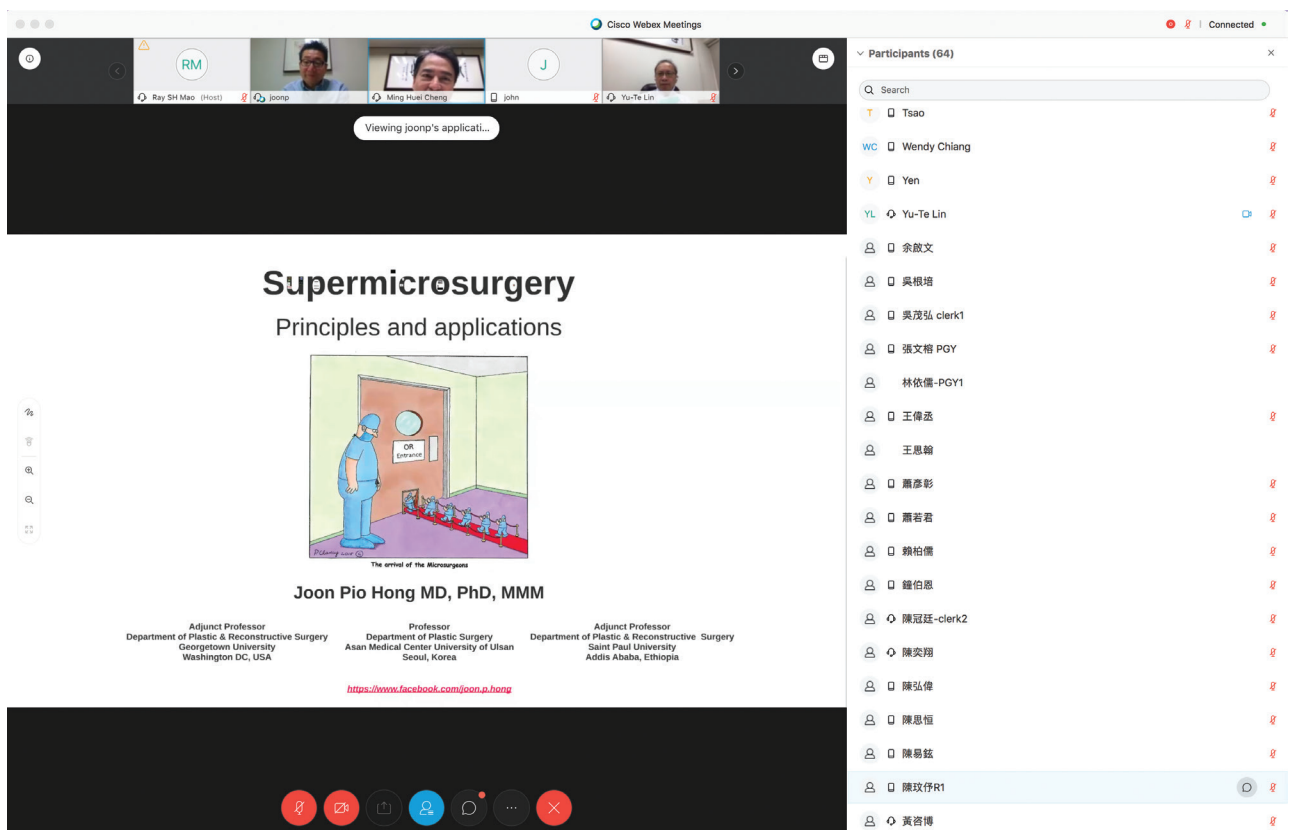
Received for publication April 13, 2020; accepted April 28, 2020.

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*Plast Reconstr Surg Glob Open* 2020;8:e2925; doi: [10.1097/GOX.0000000000002925](https://doi.org/10.1097/GOX.0000000000002925); Published online 13 May 2020.)

**Table 1. Comparison of Traditional Didactics versus Virtual Learning Sessions**

	Traditional Didactic Sessions	Virtual Learning Sessions
Location	Conference room	Anywhere, as long a computer or smartphone is available
No. attendees	Limited by the occupancy capacity of the room	Requires an internet connection Based on the type of platform Skype <ul style="list-style-type: none"> <li>Free: 50 participants</li> <li>With monthly fees: up to 1000 participants</li> </ul> WebEx <ul style="list-style-type: none"> <li>Free: 100 participants</li> <li>With monthly fees: 100–200 participants</li> </ul> Zoom <ul style="list-style-type: none"> <li>Free: 100 participants</li> <li>With monthly fees: up to 1000 participants</li> </ul>
Multimedia	Can take photographs during lectures but typically in a low resolution	Easy to record lectures and take screenshots of lectures from a computer or smartphone
Interactive	Can interact with lecturers by asking questions	Can interact with lecturers using text or microphone
Cost	Travel time to the conference room If the lecturer is from an outside institution, then airfare, hotel, and food are typically provided by the institution	None unless upgrading the plan to have more participants Allows interaction with international experts from home
Security	Access: Access is usually limited to the members of the department. Photographs/recording: Need permission from the lecturer	Access: Anyone with webinar link and password can join the session. Recording: Host can decide whether to grant the ability to record. Photographs: Screenshots can be taken without permission.


**Fig. 1.** An example of virtual learning session given using Zoom.