Overturning the Impact of COVID-19 on Surgical Outreach Programs Through Innovation: The Role of Telehealth

Elsa M. Chahine, MD,* Beyhan Annan, MPH,*
Elie P. Ramly, MD,[†] and Usama S. Hamdan, MD, FICS*^{‡§||}

Key Words: COVID-19 pandemic, COVID-19, pandemics, global health, surgical outreach programs, telehealth, global surgery

(*J Craniofac Surg* 2021;32: 2709)

Healthcare systems worldwide have suffered tremendous setbacks due to the COVID-19 pandemic. Surgical outreach programs focusing on low- and middle-income countries have been especially affected by the crisis. This has jeopardized patient access to care and the availability of dedicated personnel and resources in communities already suffering from deficits in surgical capacity and an overflow of patients with untreated conditions.

Global Smile Foundation (GSF) is a nongovernmental organization with presence in 4 countries. With the onset of the COVID-19 pandemic, GSF had to promptly acclimate to unprecedented challenges in ensuring international access to timely surgical consultation, access to surgical and multidisciplinary care, and appropriate clinical follow-up. In order to minimize the spread of the infection and comply with social distancing guidelines, cleft and dental clinics in both our Guayaquil and Beirut Comprehensive Cleft Centers were temporarily suspended. Surgical outreach programs were also severely impacted by precipitous travel bans, flight changes, and cancellations unprecedented in magnitude. As such, to ensure team safety, GSF postponed 3 of its upcoming outreach surgical programs, while closely monitoring the evolving situation. Although the suspension of elective surgeries across the United States resulted in short-term procedural delays on a local level, canceling surgical outreach programs meant delaying surgeries for many months and up to a year.

In line with our core principles, GSF leadership and volunteers quickly proceeded with a series of adaptations and innovations focusing on team and patient safety. Global Smile Foundation, Fundación Global Smile Ecuador and GSF-Middle East and North Africa leveraged innovative technological solutions to ensure the delivery of uninterrupted comprehensive patient care using a hybrid

of remote and on-site care delivery strategies. The on-site team collaborated with the remote team to contact patients and their legal guardians through video calls for appropriate follow-up and assistance. Both teams also evaluated additional pictures and/or videos to better assess outcomes. This allowed for the provision of uninterrupted long-term follow-up, education, and support to our patients and their families. Social media was additionally used to promote timely educational messages, clarifying safety guidelines and prevention measures, setting appropriate care expectations, and answering questions or addressing concerns. Informational videos centered on important health-positive topics such as proper hand-washing technique and phone disinfection were regularly posted. Educational videos and video conferencing were used to provide speech therapy lessons with simple exercises that are easily reproducible at home, with a focus on preserving gains, preventing any setbacks, and optimizing patients' overall progress.

In navigating the challenges posed by the pandemic, we strived to uphold our commitment to ensuring patient-centered care. Despite strict lockdown rules limiting face-to-face patient encounters, surgeons and on-site coordinators were able to communicate with patients and their legal guardians through video calls for their 1-month postoperative evaluation and longer term evaluations. Parents were also trained on techniques for optimizing the quality of follow-up medical photographs. These were subsequently sent to the surgeon and mission coordinator to document wound healing and overall clinical progress, rule out postoperative complications, and address any specific questions. Clinical data and progress notes were uploaded to the GSF electronic medical record system which had been developed in 2018. Centralized record keeping allowed for patient charts to be easily and securely accessible in real time to relevant team members worldwide. The electronic medical record played a pivotal role in enabling the provision of multidisciplinary continuity of care, despite the obstacles brought forth by the COVID-19 crisis.

Adequate patient follow-up is essential to promote trust, confidence, and respect between patients and on-site or visiting healthcare professionals. The speed with which GSF successfully adapted to the changing global healthcare climate without compromising patient safety or quality of care highlights the importance of a strong partnership with on-site healthcare professionals and the communities they serve. Throughout the years, GSF has advocated for and steadily invested in sustainable comprehensive cleft care delivery through the implementation of a diagonal model of surgical outreach programs. Despite its many unprecedented challenges, the COVID-19 pandemic has served as a catalyst for innovation and allowed teams worldwide to re-imagine the structure and pathways of healthcare delivery. The barriers imposed by the ongoing crisis are a mandate for organizations involved in outreach surgery to reaffirm their commitment to sustainable care through the empowerment of local providers and the acceleration of a much-needed transition to autonomous comprehensive cleft centers.

From the *Global Smile Foundation, Norwood, MA; [†]Department of Surgery, Oregon Health & Science University, Portland, OR; [‡]Department of Otolaryngology, Tufts University School of Medicine, Boston, MA; [§]Otology and Laryngology, Harvard Medical School, Boston, MA; and ^{||}Otolaryngology, Boston University School of Medicine, Boston, MA.

Received February 17, 2021.

Accepted for publication March 21, 2021.

Address correspondence and reprint requests to Elsa M. Chahine, MD, Global Smile Foundation, 101 Access Road, Suite 205, Norwood, MA 02062; E-mail: elsac@gsmile.org

The authors report no conflicts of interest.
Copyright © 2021 by Mutaz B. Habal, MD
ISSN: 1049-2275
DOI: 10.1097/SCS.00000000000007753