Challenges and lessons from COVID-19: perspectives of a female interventional cardiologist from a developing country

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On 24 February 2020, Iraq declared the first confirmed case of COVID-19. This happened to coincide with my attendance at the CardioEgypt 2020 scientific meeting, where, for the first time in my career, I was invited as a faculty member, providing multiple contributions and showcasing my work. To say I was elated would be an understatement.

I had just completed my interventional cardiology training programme and the road ahead was full of exciting opportunities. Little did I know the strain and humanitarian tragedy that would lie ahead for my country and our healthcare system. This was a system which was already fragile and somewhat broken, with no contingency for crisis management such as what was to come with the COVID-19 pandemic. We were not prepared. As physicians, we felt privileged to be entrusted with the care of patients during this difficult time, and given the many cardiac sequelae associated with the virus, cardiologists were relied upon to keep up to date with an evolving landscape of knowledge about the virus and its cardiovascular effects, contribute to research relating to links between COVID-19 and cardiovascular conditions and provide the best possible care despite the immense pressure on the healthcare system and on clinicians.

The pandemic hit us hard

The pandemic necessitated the redirection of critical resources to in-patient care. This resulted in a significant reduction in medical procedures including cardiac diagnostics.1 The number of emergency cardiac procedures such as coronary angiography and percutaneous coronary intervention appeared to sharply decline, and this was attributed to a reduction in patients with acute cardiovascular conditions presenting to hospital, for fear of contracting the virus and due to harsh lockdown rules. Personally, as an interventional cardiologist, I found using personal protective equipment (PPE) at all times extremely tiring and difficult to focus on ongoing optimal patient care. At the end of each day, we were completely exhausted, both physically and emotionally. We too were constantly reminded of the potential risk of exposure to the virus. The use of echocardiography was also strictly limited to certain indications to limit possible viral transmission and protect staff and patients.

Being one of only two female interventional cardiologists in my country, I felt my professional development was significantly impacted by the pandemic, as there was less procedural experience, less meetings and opportunities for networking, and most research became focused on the pandemic and its links to cardiovascular disease pathophysiology. As the only early-career female interventionalist in my country, I felt isolated and alone, with no colleagues to understand my situation, no role models, and without the ability to reach out to female colleagues internationally. The national lockdown made international travel impossible, which posed real professional barriers for me. I had previously attended Al-Nasiriyah Heart Centre each week to enhance my procedural skills in complex Percutaneous Coronary Intervention (PCI) and device implantation. This is a tertiary cardiac centre in Dhi Qar, a 6-h drive from my home. This trip already posed risks due to political conflicts and discord following the revolutions and was now impossible owing to widespread lockdown laws.

Working in my local institution posed its own challenges during the pandemic. It was a common concern, particularly among female physicians, that working in the clinical environment may increase the risk of viral exposure and transmission to family members, especially their children or elderly relatives. This made it difficult to juggle their professional responsibilities with caring for their family.

For the podcast associated with this article, please visit https://academic.oup.com/ehjcr/pages/podcast
personal and professional obligations when this has historically always been a fine balance. Moreover, many clinicians described feeling emotionally drained due to the pressures at work and spending prolonged periods away from their family and children. Many female healthcare workers struggled to continue to work while providing home schooling through online learning. In my country, the limited experience with e-learning and limited access to online resources in a somewhat underdeveloped infrastructure made it incredibly difficult to undertake home schooling. This also created significant stress for clinicians and impacted professional development at an already stressful and busy time. Imagine how we managed to balance work commitments, home schooling, and ensuring the safety of our families through the use of PPE both at work and in the community, regular cleaning and disinfecting shopping bags, groceries, and items within the home. This, coupled with the absence of socialization, activities outside the home, and the ability to engage in relaxation activities contributed to significant strain on wellbeing.

Resource limitation and economic impacts represented further challenges during pandemic. Resources such as PPE and medical supplies became even more scarce during the pandemic. The rising number of COVID-19 cases among hospitalized patients resulted in healthcare workers sourcing and self-funding their own PPE in an effort to maintain safety for themselves and non-infected patients. Moreover, in my country, the economic impact of COVID-19 on job loss, financial stability, and socio-economic circumstances in a country which already has a significant financial hardship, coupled with the lack of a standardized medical insurance system, left many patients with serious medical conditions unable to afford medications and certain services. This was even more marked for patients from underserved geographical regions, where access to healthcare remains limited. See Figure 1.
Challenges, lessons, and opportunities

‘Today our very survival depends on our ability to stay awake, to adjust to new ideas, to remain vigilant and to face the challenge of change’ Martin Luther King Jr.

Though the pandemic placed significant pressure on our healthcare system, there were silver lining lessons to inform our future approach to service provision and the workforce. We are now re-prioritizing our healthcare system, identifying and addressing weaknesses and limitations, and refocusing on equity in healthcare. This is essential in low resource setting to prioritize the use of medical services and supplies to provide optimal care to the community.

The personal impact was similarly significant. The pandemic required us to reconsider our work-life balance. The high morbidity and mortality re-emphasized the importance of family, community, and wellbeing. The historical expectation of sacrificing one’s personal life in preference for professional development and career progression should not be tolerated.

Prior to COVID-19, attending international scientific meetings was particularly difficult for individuals like myself from a developing country, where there are no institutional funding or educational grants available to those with academic interests. The virtual nature of scientific conferences during the pandemic allowed me for the first time to contribute to many well-regarded meetings including the ACC, ESC HFA discoveries, SCAI, HFSAA, and TCT-Connect. I am proud to say that I am the first female cardiologist from my country who contributed to academic work that has been recognized internationally. Virtual meetings have been instrumental in enhancing networking and training, providing novel ways to access educational content and continue scientific meetings with the field experts.

Virtual meetings enhance the visibility of female role models through appointments to faculty, invited speakers, and panelists, promoting cardiology for aspiring female physicians in Iraq, and encouraging recruitment into the field.

Considering the significant and ongoing impact of the pandemic on training and career advancement, it is vital that the cardiology council assess the training curriculum and requirement as well as embrace opportunities for virtual education and simulation to enhance the training experience and make it more equitable for those in under-resourced settings.

Telemedicine had emerged as an ideal platform to provide continuing patient care. During the pandemic, telemedicine was utilized heavily to provide follow-up, medical advice, and timely access to specialist services. In my country, telemedicine was highly novel and further work is needed to strengthen the existing infrastructure to make telemedicine more user-friendly and accessible for the future. Female patients have been at a disadvantage with the advent of telemedicine in my country. This is because it is forbidden for a woman to answer the telephone to an unknown male, making it difficult for female patients to receive equitable care from a male clinician. This has highlighted the critical need for better female representation within the heart team model, including doctors, nurses, and clinical pharmacists.

The pandemic has highlighted the importance of social media for physicians and in particular for Cardiologists. I only recently joined Twitter after attending one of TCT-Connect 2020 virtual sessions, and I realized this was a way in which I could follow leading Cardiologists and their research, engage in scientific discussions, and remain up to date. I noticed how many female interventional cardiologists exist on a large scale and social media provided an ideal environment to network with like-minded individuals. Many are early career cardiologists and have helped me to feel supported and part of a community. I no longer feel isolated or alone as a female interventionalist. Female role models usually give the greatest motivation. I started to exchange ideas and knowledge, interact with their cases and hear from experts that previously seemed inaccessible to me in Iraq.

These words describe not only mine, but the voices of diverse healthcare workers who navigated the COVID-19 pandemic within the developing world. The COVID-19 pandemic had an unprecedented effect on a global scale. However, it was heartening to see the unity and camaraderie, irrespective of age, gender, ethnicity, or geography. This has tested our fortitude, however, we have emerged from the other side, united and resolved to collaborate, support one another, our patients, and our healthcare ecosystem. Not only will we survive—we will thrive.

Lead author biography

Zainab Atiyah Dakhil completed an interventional cardiology fellowship program ranking first among graduates in 2019. The only female academic and interventional cardiologist in Iraq. She is interested in global contributions to cardiovascular medicine by being the data collector and manager and a co-investigator in EuroObservational Research Program (EORP-NSTEMI) and PEACE MENA registries in both acute MI and acute HF arms. She is part of the World Heart Federation Emerging Leader in 2020 Cohort. Dr Dakhil has a special interest in quality improvement projects, she conducted the first Iraqi audit or research in cardiovascular medicine that focused on adherence to guidelines in NSTE-ACS, HF, and device implantation in HF. She is very interested in roadmaps and calls for action plans that focus on cardiac services in low-resource setting as well as healthcare disparities in emerging countries and is an advocate for the role of women in cardiology.

Supplementary material

Supplementary material is available at European Heart Journal - Case Reports online.

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Slide sets: A fully edited slide set detailing these cases and suitable for local presentation is available online as Supplementary data.

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