



Short Communication

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Cardiothoracic Surgery in The Developing/Emerging World; Measures to Improve It!

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Abstract

Cardiothoracic Surgery (CTS) is one of the most challenging all surgical fields especially in developing countries. Healthcare professionals, in developing countries, working in cardiothoracic surgery are facing numerous challenges in providing quality service. Many challenges in the form of a lack of facilities, infrastructure, training programs, etc. are being faced by healthcare professionals in this field. We have advised evidence-based strategies to overcome some of the challenges being faced in the field. This article is a personal journey as well as a collective reflective piece of medical writing by mentors and a mentee. Our article gives evidence-based insight into cardiothoracic surgery in the healthcare of the developing world on the challenges in cardiothoracic surgery and how to overcome them. The three major areas, if worked on, can significantly improve the overall healthcare setup, especially cardiac surgery in the emerging world.

Cardiac Surgery Training in Developing Countries and Setting of Infrastructure

A surgeon can never perform effectively without the support and cooperation from anaesthesia, perfusionist, and postoperative care, or precise preoperative care and diagnostic facilities. Such kind of team approach is lacking in many developing countries' set-ups. Therefore, local or foreign aid is mandatory to facilitate such setups without any interruption or altered support funding and training.[1]

Our proposal

- Is based on the model of frequent visits of faculties and facilitators from more developed set-ups within the region and from abroad as well.[1]
- Simulation-Based Learning: Hands-on complex surgeries such as CTS, is sometimes not the safest option for junior residents, yet it is a necessity to develop dexterity and the mature

art and science of surgery, therefore in preliminary years, the use of simulation technology can greatly enhance the skills in a safe environment.

Congenital Heart Surgery in Developing Countries

Rapidly increasing the number of children needing congenital cardiac surgery care services. Time, mortality after congenital heart surgery can be reduced substantially by careful measures. According to WHO 1.5 million of children are estimated to be waiting for a heart operation worldwide. Unfortunately, in developing countries access to tertiary health care is not possible, and children fall into complications and death [2].

Our Proposal

- Study current care of CHD care in the developing world.



- b) Opt for international humanitarian cooperation and financial support.
- c) Develop scientific societies
- d) Education (undergraduate and postgraduate level) in paediatric cardiology / cardiac surgery for paediatricians and cardiologists/surgeons and students [2].

Inclusiveness in cardiac surgery

The specialty of cardiothoracic surgery must adopt a culture of diversity and inclusion. Surgery is not just science but a mature art that requires minds from diverse backgrounds to come together to have cutting-edge solutions.

Our Suggestions Based on Evidence

- a) Actions need to be taken to improve diversity in membership, mentorship, leadership, and representation at annual meetings.
- b) Individual surgeons, residents, and fellows can create cultures of inclusion by assessing personal implicit biases and advocating for diversity and inclusion.
- c) Patients often report much-improved satisfaction with their healthcare facility when a same-ethnicity provider treats them [3,4].

We have great conviction in our collective effort, based on evidence; that if we look into these areas Cardiac surgery as practice can be uplifted and cater better to our populations in developing countries like Pakistan.

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Conflict of Interest

None.

References

1. Velebit V, Michel Montessuit, Marek Bednarkiewicz, Gregory Khatchatourian, Xavier Mueller, et al. (2008) The development of cardiac surgery in an emerging country: a completed project. *Tex Heart Inst J* 35(3): 301-306.
2. Giamberti A, Mauro Lo Rito, Giovanni Stellin, Tom Karl, Alessandro Frigiola, et al. (2022) Editorial: Paediatric cardiology and cardiac surgery in developing countries: Current needs and future perspectives. *Front Pediatr* 10: 1067193.
3. Erkmen CP, Katherine A Ortmeyer, Glenn J Pelletier, Ourania Preventza, David T Cooke, et al. (2021) An Approach to Diversity and Inclusion in Cardiothoracic Surgery. *Ann Thorac Surg* 111(3): 747-752.
4. Claudia Villanueva, Jess Xiong, Siddharth Rajput (2020) Simulation-based surgical education in cardiothoracic training. *ANZ J Surg* 90(6): 978-983.