Emerging Optimism in Paediatric Surgery in Africa

Historically, hundreds of thousands of children worldwide with surgical conditions would go untreated due to a lack of access to appropriate care. In particular, the burden of paediatric surgical conditions in Africa was vast and the healthcare professionals with the skills to treat them were severely limited. However, the 21st century has seen substantial improvements in paediatric surgical care across the African continent. With the rise of dedicated associations, a focus on education, infrastructure development and local research, the face of paediatric surgery in Africa is transforming. This article sheds light on these significant advancements and organisations driving this progress.

Associations and societies have been pivotal in the advancements of paediatric surgery within Africa. Notably, the Pan African Paediatric Surgery Association and the West African College of Surgeons have spearheaded the improvement of surgical care for children in resource-limited settings. These organisations have provided a much-needed platform to unite paediatric surgeons from across the continent.[1] Together with national paediatric surgery associations, this has fostered an environment of knowledge sharing, collaboration and advocacy, which ultimately have improved surgical standards and patient care.

The enhanced focus on education and training has been a key driver in improving paediatric surgical care. In the past, sending trainees from low-and-middle-income countries (LMICs) to high-income countries (HICs) was the primary model used to address the shortage of trained paediatric surgeons. However, over time, this approach has evolved into locally driven accreditation and training programmes. For example, in 2007, BethanyKids became the first site in East Africa to provide training in paediatric surgery accredited by the College of Surgeons of East, Central and Southern Africa.[2] These local programmes have been pivotal in equipping aspiring paediatric surgeons with the necessary skills and knowledge for this specialised field contextualised to local needs. The inclusion of paediatric surgery in medical school curricula and the introduction of Master of Medicine programmes in paediatric surgery at African Universities have also played crucial roles in helping develop local expertise, reducing dependency on foreign-trained professionals and ensuring sustainable development of paediatric surgical care contextualised to different African countries' needs. The adoption of digital learning during the COVID-19 pandemic also shows potential for long-term supplementation of traditional educational methodologies, particularly as internet access in Africa proliferates.

The momentum garnered through these educational initiatives and associations has translated into the development of robust infrastructure and a skilled workforce in paediatric surgery. Non-governmental organisations such as Kids Operating Room, Smile Train and Operation Smile have significantly contributed to this infrastructure development, for example, by installing dedicated paediatric operating rooms.[3] In addition to non-governmental organisations, the support of governments has been instrumental in driving infrastructure improvements. Notably, the Egyptian government endorsed the establishment of the Children's Cancer Hospital Egypt, one of the largest paediatric oncology centres worldwide. Outreach programmes and training at the district level have also proved invaluable in improving access to paediatric surgical care, particularly in remote areas. Community-focused initiatives, such as the mobile paediatric surgery clinic in rural Ghana, have brought specialised care closer to those who need it, reduced travel distances for patients and improved access.[4] Furthermore, with investments into telemedicine facilities, healthcare professionals in district hospitals are now able to consult with paediatric surgical specialists in tertiary units, enabling more timely referrals and improved management of patients locally.

Workforce development has also been a priority. Task-sharing and task-shifting strategies have been used to optimise the paediatric surgical workforce, with non-specialist physicians and associate clinicians trained in paediatric surgical skills to deliver essential services in resource-constrained settings. In addition, there has been a trend towards training adult general surgeons in paediatric surgery, broadening the workforce and expanding the reach of specialised care to areas where dedicated paediatric surgeons are scarce.

Collaborations between HICs and LMICs have also made significant contributions to paediatric surgery in Africa. Through initiatives like the Global Initiative for Children's Surgery, healthcare professionals from HICs and LMICs have collaborated in the development of guidelines for surgical care, capacity-building workshops and research projects. These collaborations have provided platforms for knowledge sharing and collective learning, enabling the integration of best practices and cutting-edge techniques into paediatric surgical services in Africa. Increasingly, local health professionals are spearheading these initiatives, with research and quality improvement initiatives in paediatric surgery originating from African paediatric surgeons having seen a remarkable upsurge in recent years.[5] Such research endeavours are crucial for policy development, resource allocation and the inclusion of paediatric surgery in national health plans.

Overall, the progress in paediatric surgery in Africa is a testament to the power of collaboration, education, community engagement and a sustained focus on capacity building. The strides made in paediatric surgery have

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demonstrated the potential to make a significant impact on child health, even in resource-constrained settings. However, more needs to be done. As we look to the future, it is crucial to maintain momentum and ensure that every child across the African continent has access to the surgical care they need. This ambitious goal is achievable, but it requires the continued support of governments, non-governmental organisations, healthcare professionals and the global community. Whether it is advocating for increased funding for health infrastructure, donating to organisations working on the ground or contributing to educational and research initiatives, every effort will be vital to further enhance paediatric surgical services across the African continent.

Authors' contributions

- SB: Writing – original draft and writing – review and editing
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