Paediatric Surgery on the African Continent: How Far Have We Come; How Far Can We Go?

The world and our continent have been through difficult and interesting times during the past few decades, which has peaked with the COVID pandemic and its impact on the already strained health systems in the continent. Paediatric surgery is part of the general health systems and effected by limitations and developments of the healthcare systems in general. When it is compared to some of the other specialities such as general surgery and orthopaedics, it is still regarded as a relatively new speciality. We see dedicated specialist units being increased in numbers in Europe and North America only in the 1950s.

Following the establishment of isolated units in the 1950s and 1960s in Africa, a few national associations have been established. A milestone for our continent has been the founding of the Pan-African Association of Paediatric Surgeons (PAPSA) in the early 1990s. PAPSA's inaugural meeting took place between 9 and 11 March 1994 in Nairobi. The meeting was supported by other international paediatric surgical associations and local experts.[1]

The 1950s and 1960s have been the period where surgical procedures were developing very fast globally. These were predominantly attempts to establish procedures to manage congenital malformations such as pull-through and biliary drainage procedures. The 1990s saw the introduction of new access techniques to already established procedures. Although with some delay, treatment modalities such as minimally invasive surgery has also been accepted and in the process of being established as a standard method in most centres in the continent.

The reluctance of international organisations such as the WHO supporting paediatric surgery was already noted at the time of PAPSAs first meeting.[1] Although paediatric surgeons contributed to public health in many ways, somehow, paediatric surgery has been recognised as a super-speciality dealing with mainly rare congenital abnormalities. Recognition of the severe impact of childhood trauma and burns as well as detrimental outcomes of untreated childhood surgical conditions today is starting to be understood and recognised by policymakers.[2]

The Lancet Commission on Global Surgery has helped with awareness of the detrimental effects of childhood surgical diseases. This has resulted in the acceptance of many papers related to the continent's paediatric surgical burden in reputable medical journals. It has also encouraged many researchers from high-income countries (HICs) to conduct research on the burden of disease and resource limitations in Africa. Increased awareness resulted in international organisations providing infrastructure to several surgical units, either as operating room development or, in some cases, complete surgical units with intensive care units.

Undoubtedly, the COVID pandemic has resulted in many changes to our healthcare systems. Although it had a lesser effect on children, many elective operations had to be cancelled. This has resulted in increasing waiting lists which are common in our region. COVID also resulted in the cancellation of our planned in-person paediatric surgical meetings. During this period, PAPSA successfully ran very well-attended online meetings. It was encouraging to see the research being presented by young trainees during these meetings. In addition, the establishment of the PAPSA WhatsApp group, which is administered by the secretary general, has been hugely beneficial in sharing news relating to our profession.

An area of concern for me has been the avalanche of requests coming from researchers and medical professionals from HICs for the collection and submission of data from African paediatric surgical units for their research projects. There are several papers published recently on decolonisation of global surgery.[3] These papers pay particular attention to the limited or non-existing presence of editors in the journals that publish data from low- and middle-income countries (LMICs), research questions prepared by the HIC researchers not being relevant to the continent's needs, resources that are made available for studies not used at the site where the study conducted but used for academic positions at HICs and, in summary, almost seeing data as the new gold and looking at harvesting this new gold with minimal or no contribution to where it actually comes from. I am sure, with raised awareness, these will be recognised and not undermine the many high-quality, collaborative research projects that are currently conducted.

Paediatric surgery training centres in Africa are not uniformly able to offer experience in all areas of paediatric surgery. This was highlighted in one of the studies we have conducted on the perception of trainees in their training programmes.[4] Areas such as trauma, burns and minimally invasive surgery are not available in every unit. Rotational training, although available in some countries, is not done in every country. It is crucial that available resources are used as best as possible to maximise training opportunities.

There are many studies showing, what the paediatric surgeon's experience day to day, the significantly limited number of specialists' availability to serve their communities. The numbers are usually 20% of what they should be. In other words, it is common for having 1 paediatric surgeon serving 500,000 population in Africa, while this is <100,000 in many

HICs. The establishment and development of new training centres as well as the national and regional colleges have been most welcomed and made a huge impact on both training and qualification of paediatric surgery specialists.[2,5,6]

Despite all the challenges, we also need to look at our strengths and significant resources available in Africa. There are many centres of excellence in Africa that are open to training colleagues from within our continent. The disease burden, management of surgical conditions relevant to LMIC settings and understanding of cultures make training in Africa for Africa much more appealing. Many HIC centres today suffer from high trainee/low patient numbers that significantly diminish the quality of surgical education, particularly surgical skills training. There are several institutions in Africa that offer opportunities to support the ongoing training of registrars. Perhaps, a more organised programme under the auspices of a society would allow a structured training opportunity, with rotations when necessary, and may have a broader look at all specialities that are related to treating children's surgical conditions, including anaesthetics and nursing.

Progress is often seen better if one looks at the changes taken place over a long period. Many significant developments have taken place over the past few decades. Dedication to colleagues and desire to gain knowledge, ability to serve under the most straining conditions, collaboration between units and, most importantly, satisfaction we get from contributing to the health of a child no doubt will help us to continue the progress into the future.

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