EDITORIAL

The changing faces and phases of orthopaedic surgery in South Africa

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Orthopaedic Surgery in South Africa has advanced in leaps and bounds, with an impressive trajectory, acceleration and momentum over the years. To do justice to this fact, it needs more than an individual personal life journey to quantify the strides and quantum gains. This is, however, by no means a testimony that we have caught up with the desired correction of the historical distortions that characterise our society in general.

With evidence of the birth of our discipline in the 1700s is also a recollection and an understanding that it evolved side by side, if not within, the fold of General Surgery. The separation evolved naturally over the years to what, in many parts of the world, is today an identifiable entity defined by its philosophy, ethos, training and practice. Orthopaedic Surgery is currently poised for further growth and development, full of challenges and opportunities, all driven by several interesting factors such as dedicated orthopaedic theatres and nursing teams, innovation, research and new technologies, better teaching and training methods, evidence-based practice, and artificial intelligence (AI), among others. The changing work environment, be it in the public or private sector, the impact of economic up and down swings with related austerity measures, billing policies and cost of orthopaedic care or impending health system overhaul through the recently pronounced National Health Insurance Act, is a moving target to watch and requires appropriate responses. All these will certainly shape our future perspectives and practices in many ways.

Based on the above, my orthopaedic life journey deserves some reflection, as is the case with each one of us as we seek to add value to this noble discipline.

My early exposure to Orthopaedic Surgery began at undergraduate level in the mid-1980s as a two-week, lightning-speed series of lectures on fractures, dislocations, congenital deformities and arthritis, complemented by a few visits to the relevant outpatient department. The scene was at the then University of Natal (now University of KwaZulu-Natal) and King Edward VIII Hospital (now Victoria Mxenge Hospital). The notable orthopaedic luminaries were Prof. Theodore Sarkin, Prof. KS Naidoo, Prof. Teddy Govender, Prof. Ismail Goga and Dr Rodney Charles. In my opinion and experience, merely sniffing this subject did not prepare one for life out there as an intern where more than 60% of trauma is made up of orthopaedic cases. I find the current modernised Orthopaedic Surgery curriculum in most medical schools, although still compressed into a short time, to be better in content, focus and structure.

My next phase and experience found me back at King Edward VIII Hospital in the late 80s with Prof. Teddy Govender as a medical officer, post-internship, hungry to beef up my orthopaedic knowledge and skills for the command of basic patient care at a small rural hospital with no specialist services. One was inspired by younger, enthusiastic and competitive specialists/consultants then, such as Mzukisi Grootboom, Mthunzi Ngcelwane, Ras Rasool, Tumi Lioma and Tshidi Senoge, among others. This was the period of balanced Balkan frames and skeletal traction, open femoral nailing with Kuntscher nails, drip-stand manual traction and derotation boots, Sherman plates and screws. Then was the early encounter with a primitive C-arm X-ray machine in spinal surgery and an almost day-long hip replacement, unless in the hands of the ever quicker and versatile Teddy Govender, who was a marvel to watch. I do not recall a single tibial nailing then. Labour-intensive plaster techniques, moulding, wedging, meticulous follow-ups and proper mattress placement and stacking for spine-injured patients were key and central to daily orthopaedic practice. The long bedridden and plastered patients would often develop pressure sores, hypostatic pneumonias, urinary tract infections, muscle wasting, joint stiffness, malunion, etc., over and above being away from work and their families for long periods of time. The worst disaster was a closed femoral fracture that would have been treated with an open and unlocked femoral nail that developed subsequent sepsis.

I found the foundation years of surgical training in General Surgery and rotations through Cardiothoracic Surgery, Urology and Plastic Surgery to be a worthwhile experience and an appropriate launching pad into Orthopaedic Surgery – boosting confidence, refining surgical-clinical expertise, and sharpening decision-making skills. As such, it was a relatively easy entry into 'modern' Orthopaedic Surgery, as my first employer as a registrar in the early 1990s, Dr Jak Jakim, HoD at Hillbrow General Hospital Orthopaedics Department, preferred to refer to it. The interaction with the University of the Witwatersrand contingent of orthopaedic trainers in Johannesburg (then under the Transvaal Provincial Administration) was exciting and inspiring, although fraught with its anomalies and downsides reflective of the moment at play. First, the demographics of the staffing, both in under- and postgraduate teaching, were acutely skewed. In 1991, I was one of the first black specialist trainees to be posted to the previously whites-only Johannesburg General Hospital (now Charlotte Maxeke Johannesburg Academic Hospital). Since then, it is my observation that all the eight orthopaedic surgery departments in the country have made significant improvements towards being representative of the country's population characteristics, although a lot more can still be and needs to be achieved in that regard. The increased presence of female orthopaedic specialist trainees across all training platforms is commendable and puts this male-dominated speciality in a better light in the direction of quality human development. This is a significant value add to the foundation laid by some of my erstwhile teachers, Prof. Christine Schnitzler, Prof. Einhard Erken, Mr Rupert Kuschlik, Mr Johan van Heerden, Mr Munie Lunz, Mr Harry Berzen, Prof. Ray Valentine, Prof. Anton Scheepers, Prof. Jerry George and others, who so passionately loved teaching and imparting their skills.

Orthopaedic training in Johannesburg, a mirror of that elsewhere in the country, indeed provided excellent exposure to the enhanced

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level and evolving modern specialist training with improved implants. The dedicated orthopaedic theatre setups, with standard mobile C-arm X-ray machines, traction tables, orthopaedic-specific theatre tables and orthopaedic-trained scrub nursing sisters, brought in an empowering environment for the orthopaedic teams. This would be the era of the femoral, tibial and humeral locking intramedullary nails, not forgetting the notorious Huckstep nail, AO external fixators and improved small and large fragment sets. One was inspired and privileged to work among the pioneer African orthopaedic surgeons who seemed to be concentrated in the then Transvaal, namely, Andrew Morule, Eric Neluheni, Robert Golele, Archie Matime, Simon Motaung, Arthur Ledwaba, Sam Malebo, Mkhululi Lukhele, Abel Mjuza and David Dube, with the latter playing a tremendous role in my all-round mentoring. During this period and beyond, newer, revised offerings have included all sorts of external fixators including ring fixators for various purposes; region-specific sets; joint replacement components; the contoured anatomical locking plate and screws sets with improved soft tissue-preserving techniques using the minimally invasive plate osteosynthesis; arthroscopic interventions and robotic surgery; all complemented by solid evidence-based orthopaedic surgery, preoperative imaging with either CT scan or MRI scan as well as intraoperative fluoroscopy.

Central to all the above developments, the roles of the South African Orthopaedic Association (SAOA) and the College of Orthopaedic Surgeons (of the Colleges of Medicine of South Africa) cannot be underrated. The uniting adage ‘eendrag maak mag’ or ‘kopano ke maatla’ or ‘unity is strength’ is so relevant regarding the SAOA as its evolution and growth have brought all of us together for a common purpose on many fronts. This has not been only for membership benefit or economic protection and gain but has been a lodestar on issues of educational and training standards, protecting our interests and providing unity within the discipline of Orthopaedic Surgery. Through the College, we have been able to guide the orthopaedic training platforms without usurping the autonomy of any one of them, and running quality national exit examinations within the mandate given by the Health Professions Council of South Africa (HPCSA). The MMed research dissertation requirement has brought in value in our training and given weight to our specialist qualifications, but the uneven support at various institutions and from one discipline to the other remains a risk that must be managed expeditiously. The keeping of a portfolio of evidence through surgical logbooks, the new single best answer questions (SBAs), standard setting and, lately, work-based assessments (WBA) have brought in fairness and improvement in the quality of assessment of candidates. It has been an honour, privilege and excellent learning experience to work with exemplary colleagues in that area: Professors Teddy Govender, Robert Golele, Gert Vlok, Mac Lukhele, Johan Walters, John Shipley, Mthunzi Ngcelwane, Theo le Roux, Hans Myburgh, Robert Dunn, Vaatjie du Toit; and, more recently, Professors Sam Golele, Len Marais, Steve Matshidza, Lonwabo Nxiweni and Archie Rachuene, who I believe, have all contributed to laying the current solid foundation of what we now have. We need to continue to strive to perfect and beef up all aspects of training.

Collaboration and sharing of resources among us is vital and so is our contribution to the rest of the African continent, especially the Southern African Development Community (SADC) in training supernumerary postgraduate students. Stronger and sustainable bridges must be built wherever possible and within our means.

At this critical juncture, the question is, what is it that lies ahead of us in terms of challenges and opportunities? In my opinion, focusing on the following is essential or else we will be inviting outsiders to dictate to us:

1. Unity of the profession is paramount for us to protect and sustain our discipline to enable us to serve both the public and private sectors.
2. We must accelerate the transformation agenda within and beyond our borders, and be reflective of our society and continents.
3. Entrench evidence-based orthopaedic surgery and embrace new technology and AI while we remain cost-conscious.
4. Define ourselves within the spirit of universal healthcare coverage in a manner that defies narrow definitions. The current health systems must be corrected, strengthened and perfected for the benefit of many.
5. We must collaborate at all levels to ensure quality teaching and training, enhance and modernise our examination methods, and identify, minimise or eliminate risks.
6. We must expand the pool of more dedicated, innovative trainers and future leaders.