Meeting the need: capacity building and social responsibility in neurosurgery

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The article by Uche et al. [17] describes the successful experience of a twinning model for neurosurgical capacity building developed as a collaboration between the Neurosurgery Unit at the University of Nigeria Teaching Hospital and the Swedish Neurosurgery Society. A 2-year trial phase of the prospective study is narrated; the authors take us through a detailed multistep twinning paradigm tailored to address specific needs and overcome specific weaknesses.

Brain tumors, which were the topic of this pilot phase, present unique challenges in low-medium income countries (LMICs) ranging from limited resources to misinformation and lack of literacy, transportation, and lack of health coverage. [7] The paucity of surgeons is distressing: 1 neurosurgeon every 6.2 million people is the mean projection in Sub-Saharan Africa [5] and the article aligns with this statistic; Uche et al. describe a catchment area of 30 million people with 30 dedicated neurosurgical beds, served by 5 neurosurgeons and 10 residents. The results depicted are an example of what can be achieved: patients in their 30s treated for conditions that would have been otherwise probably left unmanaged, residents exposed to procedures locally uncommon, and formal neurosurgical training provided to 30 nurses, an example of research while most of data in LMICs is unrecognized and unpublished to this day [3], all while dealing with limited health budget and an unstable political situation [4].

Workforce expansion plays a key role in surgical system strengthening; several approaches have been proposed and

applied to overcome lack of neurosurgical care worldwide, prioritizing task sharing over task shifting [4, 11, 14, 16]; multiple twinning projects between institutions are reported in literature, plus programs and dedicated tenure tracks in the discipline of global surgery. We applaud the systematic and carefully planned efforts of the authors in establishing a locally contextualized partnership between a LMIC Institution and a high-income country (HIC) National Society, allowing access to a broader spectrum of neurosurgical subspecialties than the ones traditionally associated with global neurosurgery (trauma, hydrocephalus, infections).

Since the establishment of WFNS Training Centers, we have seen an increase in number of neurosurgeons especially in Sub-Saharan Africa, with many of them having already returned to their countries and training surgeons locally [7, 8, 16].

Donated equipment, which was a key deliverable of the twinning project, allows expansion of the scope and improved quality of neurosurgical practice; however, reliable equipment and ongoing maintenance are issues to tackle [18, 21]. Further missions from the Swedish African Neurosurgical Collaboration (SANC) are already planned, and we are looking forward to read about the long-term impact of this collaboration in the future.

Organizing and attending conferences and workshops in LMICs can help improve professional links and increase local attendance. It also eliminates visa issues so commonly encountered by many LMIC global health practitioners who wish to travel to HICs. [19] In addition to in-person meetings, platforms such as InterSurgeon can help establish international collaborative partnerships tailored on specific needs and offerings of competences. [6]

Partnerships such as the one described in the article can be a vital boost for robust methodological research. Only 4.1% of global health research activity is surgical and, of all surgical research worldwide, only 4.3% is relevant to underserved populations. [12] We regard research capacity building in LMICs as an essential component of global surgery efforts, efforts such as the NIHR Global Health Research Group on Neurotrauma are working towards this goal. [9]

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In 2015, an estimated 5 billion people lacked adequate access to essential surgical and anesthesia care, mostly in LMICs and an estimated “143 million additional surgical procedures are needed in LMICs each year to save lives and prevent disability” [10]. Each year, 5 million essential neurosurgical cases are unmet in LMICs and around 23,000 additional neurosurgeons are needed to address them. [2, 13]

These staggering figures call for a concerted effort by all stakeholders and neurosurgical leaders.

In the past several years, the WFNS and the continental neurosurgical societies have been instrumental in shaping the global neurosurgery efforts. These efforts started taking shape with the 2016 Bogota Statement on Global Neurosurgery and culminated in the creation of the WFNS Global Neurosurgery Committee [20]. This new WFNS committee aims to “align and coordinate all global efforts to collectively address the unmet neurosurgical needs of our patients, whenever and wherever” with the ultimate aim of achieving “universal access to neurosurgical care”. The objectives of this committee are the five A’s.

1. AMPLIFY access to neurosurgical care.
2. ALIGN all global neurosurgery activity.
3. ADVANCE relevant research, especially from authors in LMICs.
4. ASSIMILATE neurosurgical capacity building in surgical system strengthening.
5. ADVOCATE for (neuro) surgical care within Universal Health Coverage [1, 15].

It is socially responsible to be advocates for the needs not only of “our patients” but of patients with neurosurgical conditions worldwide. Only good things can happen if we extend our hands to our colleagues in LMICs and their patients in order to meet the unmet need and contribute to building a timely, safer, more equitable healthcare.

We are elated to comment positively on a successful twinning mission and also on the very first Global Neurosurgery themed article in *Acta Neurochirurgica*.

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