EDITORIAL

Surgical research in Sri Lanka: the way ahead

Ajith Malalasekera[1], Sivasuriya Sivaganesh[2], Kemal Deen[3]
[1]Department of Anatomy, Faculty of Medicine, University of Colombo, Sri Lanka
[2]Department of Surgery, Faculty of Medicine, University of Colombo, Sri Lanka
[3]Kings Hospital, Colombo, Sri Lanka

The College of Surgeons of Sri Lanka celebrates 50 years at the helm of surgery in Sri Lanka. This issue highlights some of the giant strides made in surgical care and training over the past 5 decades and looks at the future envisaged by the College and its membership.

Annually over 300 million patients have surgery worldwide [1]. Few are enrolled in clinical trials, especially in middle- and low-income countries [2]. As stated by Søreide "without academic involvement of surgeons essential research questions in surgery could go unaddressed, surgical diseases could be neglected, and surgical trials addressing important questions might never be done." [2].

The enthusiasm for research has shown a welcome rise in the Sri Lankan surgical community. This is demonstrated by the steady increase in abstracts submitted and the number of oral of poster presentations at the College sessions over the last decade. A similar trend was observed at the Sri Lanka Journal of Surgery with a 5-fold rise in the number of scientific articles published over the same period. While numbers alone cannot be the yardstick, it is a significant stride towards improving research in the surgical sphere nationally.

The disparities in research and publications between the "global north" and the "global south" are stark [3,4] [table 1].

Table 1. Publication output by region, country or economy [4]

Rank	Region, country or economy	2018 world total [%]
	World	
1	China	20.67
2	United States	16.54
3	India	5.31
4	Germany	4.08
5	Japan	3.87
6	United Kingdom	3.82
7	Russia	3.19
8	Italy	2.79
9	South Korea	2.60
10	France	2.60
11	Brazil	2.35
12	Canada	2.35
13	Spain	2.13
14	Australia	2.10
15	Iran	1.89
-	EU	24.34

The conduct of quality research is hampered by the dearth of academic clinicians, funding limitations, heavy clinical workloads, limited relevance to career progression, indifference of administrators and policy makers and poor collaborative networks. The College has a leading role to play in advocating training in research methodology, developing registries and databases, and strengthening incentives and career progression pathways linked to quality research output.

Incorporation of research training within surgical programs has been shown to improve academic productivity [5] The requirement of the MD surgery programme for published research or a dissertation for board certification provides basic grounding in research for new surgeons.

Poor record keeping and migration of patients between provinces and hospitals hampers accurate data storage and follow up. Establishing electronic medical records linked to online institutional databases will help mitigate this [6]. The expertise of specialists with the master's in biomedical informatics, should be utilised in this endeavour [7].

The provision of a research allowance on submission of a research paper or presentation by doctors in the Ministry of Health incentivises scientific inquiry. Doctors and allied health personnel should be encouraged by professional colleges and the Ministry of Health to engage in research that is relevant and has impact nationally.

Professional colleges and medical schools have a responsibility to facilitate collaborative research, nationally, regionally and internationally. Academic sessions serve as a focal point for researchers to network and collaborate.

Correspondence: Ajith Malalasekera
E-mail: ajith@anat.cmb.ac.lk
https://orcid.org/0000-0003-1274-8254
Received: 21-11-2021 Accepted: 21-11-2021
DOI: http://doi.org/10.4038/sljs.v39i3.8913

Projects to enhance research output in resource limited settings such as the African Perioperative Research Group on post surgical morbidity [8] and the National Cancer Grid of India which promotes collaboration and mentorship in research conduct and training, benefit Sri Lanka as well [9].

The scarcity of local indexed journals for Sri Lankan researchers leads them to publish elsewhere. This has had a detrimental impact and impedes development of national journals and should be addressed by policy makers and administrators.

There is much to be done as we step beyond the jubilee year. The College and the journal must take a lead in this endeavour to equip the next generation of surgeons with tools to inquire and innovate.

All authors disclose no conflict of interest. The study was conducted in accordance with the ethical standards of the relevant institutional or national ethics committee and the Helsinki Declaration of 1975, as revised in 2000.

References

1. International Surgical Outcomes Study g. Global patient outcomes after elective surgery: prospective cohort study in 27 low-, middle- and high-income countries. Br J Anaesth. 2016;117[5]:601-9. Epub 2016/11/02. doi: 10.1093/bja/aew316. PubMed PMID: 27799174; PubMed Central PMCID: PMCPMC5091334.
2. Soreide K, Alderson D, Bergenfelz A, Beynon J, Connor S, Deckelbaum DL, et al. Strategies to improve clinical research in surgery through international collaboration. Lancet. 2013;382[9898]:1140-51. Epub 2013/10/01. doi:10.1016/S0140-6736[13]61455-5.
3. Publication Output: U.S. Trends and International Comparisons. Science and Engineering Indicators 2020. NSB-2020-6. Alexandria, VA.: National Science Board, National Science Foundation.; [cited 2021 November 18].
4. Are C, Senthil M, Jayaryaman S, Wenos C, Pramesh CS, D'Ugo D, et al. Promoting surgical research in the Global South. Surgery. 2021;170[5]:1587-8. Epub 2021/03/14. doi: 10.1016/j.surg.2021.02.006. PubMed PMID: 33712308.
5. Miner TJ, Richardson P, Cioffi WG, Harrington DT. The Resident Outcome Project: Increased Academic Productivity Associated with a Formal Clinical Research Curriculum. J Surg Educ. 2019 Nov-Dec;76[6]:e161-e166. doi: 10.1016/j.jsurg.2019.07.016.
6. Ambegoda ALAMC JM, Kumara MGSR, Sosai CSP, Parthiepan S, Abeygunasekera AM. . Cancer audit of a urology unit from a teaching hospital in Sri Lanka – 2019. Sri Lanka Journal of Surgery. 2020;38[1]:1-5. doi: http://doi.org/10.4038/sljs.v38i1.8671.
7. Siribaddana P HR, Jayatilleke AU, Sahay S, Dissanayake VH. . Strengthening health systems through informatics capacity development among doctors in low-resource contexts: the Sri Lankan experience. . WHO South East Asia J Public Health. 2019;8[2]:87-94. doi: 10.4103/2224-3151.264852.
8. Biccard BM, African Peri-operative Research Group working g. Priorities for peri-operative research in Africa. Anaesthesia. 2020;75 Suppl 1:e28-e33. Epub 2020/01/07. doi: 10.1111/anae.14934.
9. National Science Board. The International Collaboration for Research methods Development in Oncology [CReDO] workshops. https://tmc.gov.in/credo/. Accessed November 20, 2021.