SPECIAL ARTICLE
Journal Section

Equity in Global Neurosurgery Publications: Breaking Down Barriers in Discourse

Kerry A. Vaughan, MD[1],[2] | James T. Rutka, MD Ph.D. FRCS FAANS[1],[2]

1Department of Surgery, University of Toronto, Toronto, ON, Canada
2Division of Neurosurgery, Hospital for Sick Children, Toronto, ON, Canada

Correspondence
Kerry Vaughan MD, Department of Surgery, University of Toronto, Toronto, ON, Canada
Email: Kerry.vaughan@sickkids.ca

Running title
Equity in Global Neurosurgery Publications

As neurosurgery steps into a new era of global collaboration in clinical care and teaching, neurosurgeons' academic opportunities in lower resource countries lag their counterparts in higher-income countries (1). Recent efforts to quantify and bring attention to the gap in surgical care globally with the Lancet Commission have trickled into neurosurgery, demonstrating the challenges in low resource clinical settings and their lack of representation in the literature (2). Our focus is often and most readily drawn to these disparities in care – but that is only part of the healthcare divide. The inequities that exist in neurosurgery extend beyond the operating room and into academia. We are confident that this inaugural issue of the Journal of Global Neurosurgery represents a meaningful step towards improving access to academia's traditionally rarefied world for all interested neurosurgery providers.

Halting the perpetuation of this historical "north-south gap" requires a conscious effort in our community to equalize opportunities. In 2020 alone, over 80 new publications were indexed on PubMed with the keyword "global neurosurgery" – twice as many as 2018 and 2019. Even with a steadily increasing interest in this domain, most reports in global neurosurgery – both in terms of impact and quantity – originate from high-income countries (3). Young neurosurgeons in low- and middle-income countries have universally pointed to a lack of research opportunities as the most common personal challenge to their practices, in addition to limited access to mentors, journals, and textbooks (1). There is a growing audience for global neurosurgical literature and a documented interest among young neurosurgeons for science access.

How can we address this shortage of equitably accessible scientific discourse in their practices and worldwide? One solution is to give neurosurgeons an open platform that supports those interested in our field's global-scale advancement. The appropriate voice may spur providers in limited-resource settings to work toward meaningful research contributions to the literature that otherwise might not have been written because of perceived publication bias. After all, the most cited papers in neurosurgery involve significant research, record-keeping, or operative infrastructures – such as reports of medical or surgical trials, novel techniques, or classification systems (4). We can inspire our global community and give them a voice by means of this dedicated journal and independent efforts to improve the global health research infrastructure.

Awareness of the educational and academic gaps serves as the first step toward more equitable avenues toward research – and has grown by leaps and bounds in recent years. While barriers to academic growth remain more formidable for those practicing in low resource settings, there is a silver lining. Indices of awareness surrounding the practice of global neurosurgery, such as publication keywords and distribution of authorship, maybe proxies of progress and indicate the extent to which publication disparities are being reduced (5). We must encourage this momentum in the literature by minimizing authors' barriers to conduct and publish and for readers to have the latest reports at their fingertips. The creation of the Journal of Global Neurosurgery symbolizes a collective commitment to this global scientific discourse. It makes the neurosurgical research community more accessible and inclusive of all, regardless of background or practice setting.

Scientific conferences are another important example of barriers to academic participation for providers in low-resource settings who are significantly underrepresented at such meetings, with systemic barriers like funding and limited support in part limiting their participation (6). We must acknowledge that it is the very diversity of participants that gives discussions at conferences their substance; sharing experiences and information on neurosurgical education, for example, paves the way for ideas and global collaborations and reports (7,8).

As we have learned during the COVID-19 pandemic, our ongoing adoption of virtual meetings may help lessen such barriers to attending conferences and allow broader participation and richer discussions. For those unable to participate even in these meetings, the Journal of Global Neurosurgery can serve as another accessible platform to exchange ideas that may be more readily accessible to providers in lower resource settings. Taking cues from integrating our field into the broader domain of global surgery, we can gather momentum toward providing globally equitable academic opportunities, including the Journal of Global Neurosurgery. As

neurosurgeons, part of our role is to transmit the mentoring opportunities we received to those younger and perhaps less resource-rich than us – those who represent the next generation of neurosurgery. The days of the closed network of ivory towers are passed, and we must engage wholeheartedly with colleagues and students worldwide to enrich and advance neurosurgery. There must be a conscious and collective effort to create academic opportunities and forums accessible to all, not hidden behind costly barriers that often discriminate against providers and trainees in low- or middle-income countries. We believe there is a bright, global future for the new Journal of Global Neurosurgery, and we look forward to the free-flowing international discourse that will arise in its pages.

REFERENCES

1. Robertson FC, Gnanakumar S, Karekezi C, Vaughan K, Garcia RM, Abou El Ela Bourquin B, et al. The World Federation of Neurosurgical Societies Young Neurosurgeons Survey (Part II): Barriers to Professional Development and Service Delivery in Neurosurgery. World Neurosurgery: X. 1st October 2020; 8:100084.

2. Weiss HK, Garcia RM, Omiye JA, Vervoort D, Riestenberg R, Yerneni K, et al. A Systematic Review of Neurosurgical Care in Low-Income Countries. World Neurosurg X. January 2020; 5:100068.

3. Niquen-Jimenez M, Wishart D, Garcia RM, Shlobin NA, Steinle J, Weiss H, et al. A Bibliographic Analysis of the Most Cited Articles in Global Neurosurgery. World Neurosurgery. 1st December de 2020;144: e195-203.

4. Ponce FA, Lozano AM. Highly cited works in neurosurgery, part I: the 100 top-cited papers in neurosurgical journals. J Neurosurg. febrero de 2010;112(2):223-32.

5. Behmer Hansen RT, Behmer Hansen RA, Behmer VA, Gold J, Silva N, Dubey A, et al. Update on the global neurosurgery movement: A systematic review of international vernacular, research trends, and authorship. Journal of Clinical Neuroscience. 1st September 2020; 79:183-90.

6. Velin L, Lartigue J-W, Johnson SA, Zorigtbaatar A, Kanmounye US, Truche P, et al. Conference equity in global health: a systematic review of factors impacting LMIC representation at global health conferences. BMJ Global Health. 1st January 2021;6(1): e003455.

7. Kato Y, Liew BS, Sufianov AA, Rasulic L, Arnautovic KI, Dong VH, et al. Review of global neurosurgery education: Horizon of Neurosurgery in the Developing Countries. Chinese Neurosurgical Journal. 19 May 2020;6(1):19.

8. Rutka JT. Editorial. Global neurosurgery and our social responsibility. Journal of Neurosurgery. 1st April de 2019;130(4):1050-2.