Building research capacity to correct global health's wrongs

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Global health has been defined as an area for study, research, and practice that places a priority on improving health and achieving equity in health for all people worldwide.[1] Recently, these definitions have been challenged, with equity being placed at the centre of definitions of relationships between high-income and low-income partners in global health.[2] We believe that equity can only be achieved when there is co-development of work, prioritisation of research agendas, fair distribution of human and infrastructural resources, and qualified research teams who are based in low-income and middle-income countries (LMICs) who can address local research needs.

As researchers working in lung health in Africa, we are keenly aware of the need for improved research capacity.[3,4] Africa comprises 15% of the world population, but bears 25% of the global disease burden and produces only 2% of the world's research output.[5] This low research output is not by chance; there are a number of systemic external and internal factors to blame. As clinician researchers who have at various points been students, faculty, and leadership of a research capacity strengthening programme in a global health context, we aim to share some of the lessons learned from our experiences working with early career researchers. We also attempt to understand the structural barriers that early career researchers face in the American Thoracic Society (ATS) and the Methods in Epidemiological Clinical in Operational Research programme of the Pan African Thoracic Society (PATS-MECOR).[6]

The PATS-MECOR programme, which was initially fully funded by ATS, a US-based lung health society, started with a small cohort of early career researcher students and has to date trained 284 students from more than 22 countries in Africa.[4] Over the years, the programme has largely been funded through UK research projects with embedded research capacity building programmes, such as the International Multidisciplinary Programme to Address Lung Health and TB in Africa (IMPALA) and BREATHE.[7] Like many global health projects, the faculty were mainly US-based and UK-based and highly skilled, but were training African researchers who were trying to tackle their own local lung health challenges.

Once provided with tools to conduct research, early career researchers are faced with the stark reality of a lack of access to grants. Although the PATS-MECOR programme provides seed grants to a few successful candidates participating in the course, it is clear that the lack of investment from most African governments, along with the limited institutional support for early career researchers in most universities and national medical research units, perpetuates this crisis in research capacity building. Institutions in Africa that do fund research largely support more established researchers, such as the African Academy of Sciences.[8] There are also major gaps in research training programmes and research grants, and there is limited commitment from the African Union and regional bodies to support programmes and grants. Early career researchers and established researchers are therefore primarily dependent on international donors, who tend to set the agenda and do so from a high-income-country perspective. Grants management systems might be weak institutionally, with lack of human resources and infrastructure to support managements of large grants, which further limits access. Another barrier faced by early career researchers is an inability to access publications relevant to the research field from non-open-access journals.

Faced with this reality, we made a number of important changes to PATS-MECOR, and propose some solutions to make global health research partnerships between high-income countries and LMICs work better. PATS-MECOR has evolved considerably over the past few years, but this change was by no means easy. For this transformation to occur, African leaders needed to gain autonomy, and mutual respect and trust between faculty and students of high-income countries and low-income countries was required. The programme is now African-led and most faculty members are African. Funding for the programme has been transferred to an African society, and all funding decisions are made by African leadership. To improve the seed grants provided for the students, PATS is also committing funding towards the MECOR programme. There is still room for improvement, and it is time to look towards African alumni and the diaspora community to raise crucial funds for early career researchers in the future to ensure sustainability. We will continue to look for complementary funding through philanthropies and African funding bodies to sustain the programme. We

also hope that journals will heed the call for open access and offer substantially reduced or no fees for individuals who are conducting global health research in LMICs, to address this inequity.

So, is it possible to get global health right? We propose yes, through strengthening research capacity, which could in turn dismantle and re-shape existing structures, invoke introspection, and embolden power negotiations among all the key players in the research ecosystem.

We declare no competing interests.

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