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### Addressing language inequities in global health science scholarly publishing

ARTICLE INFO

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This article explores the critical issue of language inequities in scholarly publishing within the context of decolonizing global health science. It highlights the dominance of English in scientific communication, emphasizing the disparity this creates for non-English speaking researchers and the consequent impact on the diversity and inclusivity of scientific discourse. The paper discusses the challenges faced by these researchers, including barriers to publication in 'leading' journals and the additional financial burden of language editing services. It also examines how this linguistic bias contributes to a wider disparity between developed and developing regions and calls for a re-evaluation of the disproportionate emphasis on English to foster a more linguistically diverse scientific community. The paper proposes actionable steps such as providing language editing services, publishing abstracts in multiple languages, and supporting regional journals as well as leveraging artificial intelligence and machine learning to promote inclusivity. This approach aims to enrich scientific inquiry by incorporating a broader spectrum of cultural and regional perspectives, advocating for an equitable and diverse global health science landscape.

#### Dear Editors

The ongoing quest to decolonize science must address a particularly pervasive yet often overlooked challenge: the language barrier in scientific publishing. As it stands, the domain of scientific communication is largely monopolized by the English language [1]. This dominance is striking when considering that, although estimates vary, only around 5 % of the world's population has English as a first language, and between one in five to one in 14 people are estimated to speak English as a second language — with many potentially struggling with even basic English comprehension [1]. Such statistics reveal a stark disparity. This has inadvertently amplified the voices of those with strong English language proficiency, while side-lining many meritorious researchers who struggle with the language [2]. Thus, the current paradigm of scientific publishing perpetuates a system riddled with inequality, undermining the very spirit of science as a universal endeavour [3,4]. This linguistic dominance is not limited to traditional scientific disciplines but extends to global health research, where diverse voices are essential for comprehensive insights and solutions. True democratization of global health science requires recognizing and rectifying this linguistic hegemony, ensuring that knowledge production and dissemination are not confined to the boundaries of a single language. A good starting point is by decolonizing academic publishing spaces, particularly journals [5]. These are spaces where the dissemination of 'acceptable' knowledge occurs, and 'epistemic privilege' is granted.

A recent analysis shows that most authors in decolonizing global health publications are affiliated with English-speaking high-income countries, highlighting a significant lack of contributions from those affiliated with Global Health institutions in 'less privileged' regions [6]. This gap suggests that voices crucial for understanding the needs of the decolonizing global health movement are underrepresented. This scenario indicates that the movement itself may be experiencing a form of colonization, with language barriers potentially silencing marginalized

voices. Furthermore, journals that command global recognition, citations, and impact largely publish articles in English [5]. Consequently, researchers who are not proficient in English find it exponentially more difficult to share their findings with the global scientific community. Their work might be ground-breaking or innovative, yet the language barrier can prevent them from publishing in prominent journals. The disparity is not a reflection of the quality or significance of their research but of their language proficiency. This is consistent with a study in which a majority of global health trainees from the Global South highlighted the negative impact of colonialism on their academic careers [7]. In a similar vein, our work at the Global Health Focus University Research Excellence, with a focus on addressing research inequities faced by institutions in low-resource settings, underscores this issue. In these environments, language barriers are frequently cited as a major obstacle limiting their contributions to scientific knowledge. Some of the researchers in these institutions often prefer to publish in their 'local' language or in regional journals, which unfortunately limits their reach and influence within the wider scientific community.

Moreover, in the field of global health science, particularly in disciplines like epidemiology, there is a noticeable trend in systematic reviews and meta-analyses, which are pivotal for shaping interventions, to predominantly feature papers published in English [8]. This prevalent practice has systematically marginalized the contributions and perspectives of non-English researchers, whose manuscripts might have been rejected due to language issues, as well as research published in other local languages. Such exclusion creates a substantial deficit in the diversity and inclusiveness of the global health discourse, thereby limiting the breadth of viewpoints and insights essential for comprehensive policymaking. Furthermore, studies have indicated that restricting systematic reviews to English-language publications may not significantly alter effect estimates and conclusions [9,10]. However, these studies do not fully address the issue of initial publication barriers

due to language, where valuable research might be excluded early on. This underrepresentation of non-English research further narrows the scope of global health literature, potentially affecting the richness and applicability of systematic reviews in informing global health policies.

The peer-review process, too, is not immune to biases stemming from linguistic discrepancies [11]. Manuscripts from non-native English speakers often require substantial language editing, making them potentially more susceptible to rejection or extensive revisions not because of their scientific content but because of their linguistic presentation. Significantly, in fields like global health where diversity of input is crucial, this language barrier can hinder critical insights from reaching a wider audience. Furthermore, this entrenched linguistic bias exacerbates disparity, as institutions in non-English speaking countries might lack the resources for extensive language training. A talented scientist's potential is unfairly stifled when their ideas are judged based on language fluency rather than scientific merit. This perpetuates what Seye Abimbola describes as the 'Information Problem' in Global Health, where diverse voices remain underrepresented in the global health discourse [12]. Language inequities serve as a proxy for broader issues of power asymmetry and epistemic injustice that distances us from the valuable knowledge found at the periphery [13], reflecting a need for systemic change [14].

Researchers from non-English speaking backgrounds frequently need to hire professional translators or editors to ensure their work meets the linguistic standards of top-tier journals. This introduces an additional financial burden, further widening the gap between well-funded institutions and those in resource-limited settings [2]. Moreover, this can lead to exploitation by predatory journals, which might take advantage of researchers desperate for a platform, offering them an outlet for their work at significant personal and institutional costs. The scientific community risks missing out on diverse perspectives by prioritizing English language proficiency, especially in fields like global health where evidence-based interventions are crucial. Science thrives when a plurality of voices, backgrounds, and experiences are incorporated into the discourse. The global scientific community loses access to a wealth of knowledge and insights that could lead to innovative solutions and discoveries by side-lining researchers due to language barriers. This linguistic divide not only restricts the potential of individual researchers but also limits the breadth of knowledge available to the world. The homogenization of scientific discourse, tethered to a single language, inadvertently truncates the richness of global contributions. Addressing this challenge is not just about equity, but also about enriching the tapestry of scientific inquiry for the benefit of all.

To decolonize scientific publishing and make it more inclusive, several steps can be considered. Journals and institutions might provide language editing services without a cost, ensuring that research is evaluated on its scientific content and not its linguistic fluency. Enhancing accessibility further, journals could prioritize publishing abstracts in multiple languages, enabling key findings to reach a broader audience. It is pertinent for editorial boards and reviewer groups to embrace diversity, countering biases and creating a fairer platform for all scholars. Additionally, recognizing and elevating regional/in-country journals that publish in non-English languages can encourage researchers to contribute to these platforms, amplifying their reach and influence. Institutions should proactively offer workshops on scientific writing in English, narrowing the language divide and preparing researchers to engage with the global scientific arena effectively. Indeed, the practicalities of translating entire scientific papers into thousands of languages can be challenging. However, an innovative approach to decolonizing scientific publishing could involve leveraging advanced technology such as artificial intelligence (AI) and machine learning. AI could be used to create translation tools specifically tailored for scientific literature, enabling automatic translation of entire papers into various languages with high accuracy. Additionally, machine learning algorithms could be designed to identify and mitigate biases in peer review processes. This technology could analyse patterns in rejected and

accepted papers, helping to ensure that decisions are based on content rather than language or regional biases. Incorporating such technological solutions could significantly enhance accessibility and fairness in scientific publishing.

While the endeavour to recalibrate this imbalance is formidable, the potential dividends — a broader spectrum of scientific insights and a more representative scientific community — are invaluable. An equitable scientific publishing platform that champions linguistic diversity will pave the way for underrepresented voices, enriching the tapestry of scientific inquiry with varied cultural and regional perspectives. The term 'global' in global health is more than just a word; it carries a profound responsibility. Researchers, policymakers, healthcare providers, funding agencies, journals, and global health institutions must collaboratively address this enduring inequity. As global health science aims to be a collaborative, global endeavour, it is crucial to reassess the disproportionate focus on English and develop methods for fostering more linguistically diverse scientific communication.

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