Authorship equity guidelines in global health journals

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Equity, justice, and collaboration are widely recognised central ideological drivers of global health.1 While not new phenomena, recently there has been greater discussion around the many existing inequities in global health research collaboration, leading to calls to ‘decolonise global health’.2 However, persisting imbalances in power and privilege, inequitable funding opportunities, and disparate benefits from global health research hamper progress towards a more equitable field and the attainment of global health’s aspirational core driving principles.3

There are marked inequities in authorship representation in publications reporting work conducted in low- and middle-income countries (LMICs).4–6 Investigators affiliated with high-income countries (HICs) often occupy the most prominent first and last author positions in studies conducted in LMICs and even worse, ‘authorship parasitism’, in which no authors are affiliated with the study country, occurs in as much as 15% of articles.4 Such findings clearly demonstrate that authorship in global health research has yet to be decolonised. Though most journals adhere to the International Committee of Medical Journal Editors (ICMJE) authorship guidelines,7 internationally accepted guidelines on local authorship representation in research conducted in LMICs are lacking.

Some editorial boards of global health journals have recently called for the creation of journal-level guidelines to mandate equitable authorship practices in global health research.19 However, an understanding of the prevalence and content of authorship guidelines related to work conducted in LMICs in global health journals is lacking. Our objective was to describe the current landscape of global health specialty journal guidelines addressing authorship equity for research conducted in LMICs.

We conducted a cross-sectional analysis of global health specialty journals. We used the methodology described by Bhaumik and Jagnoor to identify global health specialty journals and conducted a journal search in April 2022.10 We searched the National Library of Medicine for global health specialty journals using the key terms, “Global Health”[Mesh] OR (“Public Health”[Mesh] AND “International”[Mesh]) OR “global health”[All Fields] OR “international health”[All Fields] OR “international public health”[All Fields] AND ncbijournals[All Fields]”. We reviewed the resulting journals to identify those specifically dedicated to publishing global health research. To define global health specialty journals, we used the National Library of Medicine definition of global health as an ‘inter-disciplinary field concerned with improving health and achieving equity in health for all people. It transcends national boundaries, promotes cooperation and collaboration within and beyond health science fields.’11 Two authors reviewed each journal to verify that the journal primarily published global health-related articles.

We included journals that were publishing articles in 2022 that included ‘global health’ or ‘international health’ or ‘developing
countries’ in their journal description. We excluded journals that primarily published laboratory-based articles without human subjects and journals that primarily published symposium or conference reports. We searched the main page, author instructions, and linked materials from the website of each included journal for guidelines or language related to authorship in research conducted in LMICs. When no such language was found, or it was unclear, we emailed the editorial office or managing editor listed on each website twice to request information regarding existing guidelines related to local authorship representation.

We collected the following characteristics of each global health specialty journal: country headquarters, year the journal was established, journal impact factor according to the Journal Citation Report in 2020,12 open access status, presence of article processing charges, and composition of editorial staff country affiliations. We also extracted information about individual journal policies on article processing charge discounts to authors affiliated with LMICs. For each journal, we extracted guidelines regarding the inclusion of LMIC-affiliated authors for studies conducted in LMICs. Editorial staff country affiliations were categorised according to the World Bank income categories in 2022.13

We conducted descriptive statistics of journal characteristics and the prevalence of guidelines regarding authorship in research conducted in LMICs. We categorised journals according to authorship guideline content and local authorship inclusion recommendations that emerged upon review of the included journals’ webpages and the editorial office responses using an iterative approach by two authors. All comparisons of proportions were made using the Fisher’s exact test. All analyses were conducted using R V.4.1.2 (R Foundation for Statistical Computing).

There were 95 journals identified through our query. Of those, 45 (47.4%) met our inclusion criteria. The majority (n=41, 91.1%) of journal headquarters were in HICs (table 1). The median impact factor of the 20 journals with published impact factors in 2020 was 3.014 (IQR 2.445–4.242). Nearly all journals were open access or had open access options (n=43, 95.6%). Of the journals with article processing fees, the median fee was US$2100 (IQR $1288–3021), and 29 (67.4%) had discounted article processing charges to authors affiliated with LMICs. There were 2927 total editorial staff members in the included global health specialty journals. Of those with available country affiliations, the majority were affiliated with HICs (n=2155, 73.6%).

Nearly all journals had a general guideline delineating requirements for authorship (n=41, 91.1%); 75.6% (n=34) of these adhered to the ICMJE authorship criteria, three (6.6%) adhered to the Committee on Publication Ethics criteria and one (2.2%) adhered to the CRediT criteria (table 2). Despite most global health specialty journals including general authorship guidelines, only 17.8% (n=8) included specific language regarding local authorship representation in research conducted in LMICs. In our email correspondence, 59.5% (n=22 of 37) of journals replied and three additional journals reported internal guidelines, not listed on their websites, regarding the inclusion of LMIC-affiliated authors for work conducted in LMICs. Only 27.3% (n=3 of 11) of the journals with LMIC authorship guidelines explicitly required the inclusion of authors affiliated with study countries. The rest (72.7%, n=8 of 11) encouraged the inclusion of LMIC authors. One journal (BMJ Global Health) required that extensive authorship reflexivity statements accompany submitted articles involving partnerships between LMIC and HIC investigators.

Authorship guidelines regarding inclusive LMIC authorship were more common among journals with an impact factor of ≥3.0 (n=5 of 11, 45.5%) than those whose impact factor was <3.0 (n=5 of 34, 14.7%, p=0.04) (online supplemental table 1). Authorship guidelines that were inclusive of LMIC authorship were not more common among journals headquartered in LMICs (p=0.56), journals established after 2010 (p=1.0), those with open access (p=1.0) or with discounted article processing charges to LMIC investigators (p=1.0).

Global health specialty journals have widely adopted standardised authorship criteria including the ICMJE authorship guidelines. Nonetheless, despite well-documented authorship inequities in global health research,4–6 few global health specialty journals have guidelines specifically addressing authorship equity for research conducted in LMICs. Such guidelines were more common among higher impact journals, which may be reflective of more experience and perhaps a greater commitment to equity. The adoption of guidelines to promote equitable authorship practices in work conducted in LMICs by global health journals is an important step towards reducing authorship disparities in global health research.

General authorship criteria, such as those put forth by the ICMJE, have set standards of authorship, but do not specifically address common power imbalances between investigators from HICs and LMICs.14 15 Additionally, the applicability of these authorship criteria to global health research has been questioned, as local expertise, efforts, and key contributions may not be captured by standard authorship guidelines.16 17 Thus, global health specialty journals have an opportunity to address this equity gap by internally enforcing equitable authorship practices. However, as this analysis demonstrates, as of 2022, such guidelines are scarce.

Equitable authorship guidelines among global health specialty journals are a step towards fair representation of LMIC investigators but are not sufficient to truly establish equity in global health research. Potential drawbacks and limitations to the adoption of such authorship guidelines may include excessive restrictiveness in some cases. Strict authorship guidelines may unintentionally lead to token authorship, which would address inequalities in authorship while doing little to address, and perhaps may even
| Journal | Country headquarters | Year established | Impact factor | Open access | Article processing charges | Article processing discounts* | Editorial staff members’ affiliation with LMICs, n (%) |
|---------|---------------------|-----------------|---------------|-------------|---------------------------|-----------------------------|-----------------------------------|
| Annals of Global Health | USA | 1934 | 2.462 | Yes | Yes | Yes | 3/52 (5.8) |
| BMC Public Health | UK | 2001 | 3.295 | Yes | Yes | Yes | 154/609 (25.3) |
| BMJ Global Health | UK | 2016 | 5.558 | Yes | Yes | Yes | 11/40 (27.5) |
| Central Asian Journal of Global Health | USA | 2012 | 0.45† | Yes | No | – | 0/23 (0.0) |
| Clinical Epidemiology and Global Health | India | 2013 | 0.69† | Yes | Yes | Yes | 28/37 (75.7) |
| Emerging Microbes & Infections | USA | 2012 | 7.163 | Yes | Yes | Yes | 0/60 (0.0) |
| Field Actions Science Reports | France | 2008 | – | Yes | No | – | 16/44 (36.4) |
| Frontiers in Global Women’s Health | Switzerland | 2020 | – | Yes | Yes | No | 171/414 (41.3) |
| Global Challenges (Hoboken, NJ) | Germany | 2015 | 3.847 | Yes | Yes | Yes | 2/65 (3.1) |
| Global Health Action | UK and Sweden | 2011 | 2.662 | Yes | Yes | Yes | 2/17 (11.8) |
| Global Health Governance | USA | 2007 | – | Yes | No | – | 1/24 (4.2) |
| Global Health Innovation | South Africa | 2018 | – | Yes | No | – | 7/13 (53.8) |
| Global Health Journal (Amsterdam, the Netherlands) | China and the Netherlands | 2017 | – | Yes | No | – | 0/49 (0.0) |
| Global Health Promotion | France/Canada/USA | 1994 | 1.976 | Yes | Yes | Yes | 1/11 (9.1) |
| Global Health Research and Policy | China | 2016 | 0.88† | Yes | No | – | 6/76 (7.9) |
| Global Health, Epidemiology and Genomics | USA | 2016 | – | Yes | Yes | Yes | 2/14 (14.3) |
| Global Health, Science and Practice | USA and Canada | 2013 | – | Yes | No | – | No affiliations listed |
| Global Journal of Health Science | Canada | 2009 | – | Yes | Yes | Yes | 19/124 (15.3) |
| Global Mental Health | USA | 2014 | 3.500 | Yes | Yes | Yes | 10/33 (30.3) |
| Global Pediatric Health | USA | 2014 | – | Yes | Yes | Yes | 3/35 (8.6) |
| Global Public Health | USA | 2006 | 2.396 | Yes | Yes | Yes | 9/61 (14.8) |
| Global Reproductive Health | USA | 2016 | – | Yes | Yes | No | No affiliations listed |
| Globalization and Health | UK | 2005 | 4.185 | Yes | Yes | Yes | 3/46 (6.5) |
| Health Policy OPEN | – | 2020 | – | Yes | Yes | No | 3/10 (30.0) |
| International Health | UK | 2009 | 2.473 | Yes | Yes | Yes | 5/43 (11.6) |
| International Journal of MCH and AIDS | USA | 2012 | – | Yes | Yes | Yes | 11/38 (28.9) |
| International Journal of Travel Medicine and Global Health | Iran | 2013 | – | Yes | Yes | Free, except for Iranian authors | 10/25 (40.0) |
| International Public Health Journal | USA | 2009 | – | Optional | Yes | – | 1/17 (5.9) |
Table 1  Continued

| Journal                                           | Country headquarters | Year established | Impact factor | Open access | Article processing charges | Article processing discounts* | Editorial staff members’ affiliation with LMICs, n (%) |
|---------------------------------------------------|----------------------|------------------|---------------|-------------|----------------------------|-------------------------------|-----------------------------------------------------|
| Journal of Disease and Global Health              | UK                   | 2014             | –             | No          | No                         | –                            | 2/13 (15.4)                                        |
| Journal of Epidemiology and Global Health         | Saudi Arabia         | 2011             | 1.719         | Yes         | Yes                        | Yes                           | 1/35 (2.9)                                         |
| Journal of Global Health                          | UK                   | 2011             | 4.413         | Yes         | Yes                        | Yes                           | 6/63 (9.5)                                         |
| Journal of Global Health Economics and Policy      | Croatia              | 2021             | –             | Yes         | Yes                        | Yes                           | 6/18 (33.3)                                        |
| Journal of Global Health Reports                   | UK                   | 2017             | –             | Yes         | Yes                        | No                            | 5/23 (21.7)                                        |
| Journal of Global Health Science                   | South Korea          | 2019             | –             | Yes         | Yes                        | Yes                           | 5/27 (18.5)                                        |
| Journal of Tropical Pediatrics                     | UK and USA           | 1980             | 1.165         | Yes/optional | Yes                        | Yes                           | 5/9 (55.6)                                         |
| Lancet Planetary Health                           | The Netherlands      | 2017             | 19.173        | Yes         | Yes                        | Yes                           | 3/28 (10.7)                                        |
| Medicine, Conflict, and Survival                   | UK                   | 1985             | –             | Optional     | Yes                        | Yes                           | 2/35 (5.7)                                         |
| One Health (Amsterdam, the Netherlands)            | The Netherlands      | 2015             | 3.800         | Yes         | Yes                        | Yes                           | 3/45 (6.7)                                         |
| Paediatrics and International Child Health        | UK                   | 2012             | 1.990         | Optional     | No                         | Yes                           | 9/32 (28.1)                                        |
| Pathogens and Global Health                       | UK                   | 2012             | 2.733         | Optional     | No                         | Yes                           | 2/27 (7.4)                                         |
| PLOS Global Public Health                         | USA                  | 2021             | –             | Yes         | Yes                        | Yes                           | 221/440 (48.0)                                    |
| Public Health Reviews                             | Switzerland          | 1972             | 0.88†         | Yes         | Yes                        | Yes                           | 3/30 (10.0)                                        |
| The Journal of Global Radiology                    | USA                  | 2015             | –             | Yes         | No                         | –                             | 5/34 (14.7)                                        |
| Lancet Global Health                               | UK                   | 2013             | 26.763        | Yes         | Yes                        | Yes                           | 7/30 (23.3)                                        |
| Tropical Medicine and International Health        | UK                   | 1986             | 2.622         | No          | No                         | –                             | 9/58 (15.5)                                        |

*Article processing charge discount for authors affiliated with LMICs.
†Journal Citation Indicator because impact factor not available in Journal Citation Report.
LMICs, low- and middle-income countries.
| Journal                                           | General authorship guideline | General authorship guideline adheres to ICMJE | Authorship guideline including authors affiliated with LMICs | Nature of local authorship representation guideline |
|---------------------------------------------------|-------------------------------|-----------------------------------------------|-------------------------------------------------------------|----------------------------------------------------|
| Annals of Global Health                           | Yes                           | Yes                                           | No                                                          |                                                    |
| BMC Public Health                                 | Yes                           | Yes                                           | Yes                                                         | Encourage inclusion                                 |
| BMJ Global Health                                 | Yes                           | Yes                                           | Yes                                                         | Require inclusion                                   |
| Central Asian Journal of Global Health            | Yes                           | No                                            | No                                                          |                                                   |
| Clinical Epidemiology and Global Health           | Yes                           | Yes                                           | No                                                          |                                                   |
| Emerging Microbes & Infections                    | Yes                           | Yes                                           | No                                                          |                                                   |
| Field Actions Science Reports                     | No                            | –                                             | –                                                           |                                                    |
| Frontiers in Global Women’s Health                | Yes                           | Yes                                           | No                                                          |                                                   |
| Global Challenges (Hoboken, NJ)                   | Yes                           | No                                            | No                                                          |                                                   |
| Global Health Action                              | Yes                           | Yes                                           | No                                                          |                                                   |
| Global Health Governance                          | No                            | –                                             | –                                                           |                                                    |
| Global Health Innovation                          | No                            | –                                             | –                                                           |                                                    |
| Global Health Journal (Amsterdam, the Netherlands) | Yes                           | CRediT                                       | No                                                          |                                                   |
| Global Health Promotion                           | Yes                           | Yes                                           | No                                                          |                                                    |
| Global Health Research and Policy                 | Yes                           | Yes                                           | Yes                                                         | Encourage inclusion                                 |
| Global Health, Epidemiology and Genomics          | Yes                           | Yes                                           | No                                                          |                                                    |
| Global Health, Science and Practice               | Yes                           | Yes                                           | Yes                                                         | Encourage inclusion                                 |
| Global Journal of Health Science                  | Yes                           | COPE                                          | No                                                          |                                                    |
| Global Mental Health                              | Yes                           | Yes                                           | No                                                          |                                                    |
| Global Pediatric Health                           | Yes                           | Yes                                           | No                                                          |                                                    |
| Global Public Health                              | Yes                           | Yes                                           | No                                                          | Encourage inclusion*                                |
| Global Reproductive Health                        | Yes                           | Yes                                           | No                                                          |                                                    |
| Globalization and Health                          | Yes                           | Yes                                           | Yes                                                         | Encourage inclusion                                 |
| Health Policy OPEN                                | No                            | No                                            | No                                                          |                                                    |
| International Health                              | Yes                           | Yes                                           | No                                                          |                                                    |
| International Journal of MCH and AIDS             | Yes                           | Yes                                           | No                                                          | Require inclusion*                                  |
| International Journal of Travel Medicine and Global Health | Yes                           | Yes                                           | No                                                          |                                                    |
| International Public Health Journal               | Yes                           | COPE                                          | No                                                          |                                                    |
| Journal of Disease and Global Health              | Yes                           | COPE                                          | No                                                          |                                                    |
| Journal of Epidemiology and Global Health         | Yes                           | Yes                                           | No                                                          |                                                    |
| Journal of Global Health                          | Yes                           | Yes                                           | No                                                          |                                                    |
| Journal of Global Health Economics and Policy      | Yes                           | Yes                                           | No                                                          |                                                    |
| Journal of Global Health Reports                  | Yes                           | Yes                                           | No                                                          | Encourage inclusion*                                |
| Journal of Global Health Science                  | Yes                           | Yes                                           | No                                                          |                                                    |
| Journal of Tropical Pediatrics                    | Yes                           | Yes                                           | No                                                          |                                                    |
| Lancet Planetary Health                           | Yes                           | Yes                                           | Yes                                                         | Encourage inclusion                                 |

Continued
exacerbate, inequities. Furthermore, guidance regarding the appropriate assignment of first and last authorship position, though ignored in standard authorship guidelines but widely used as metrics for academic promotion, may also be needed. These prominent authorship positions may be challenging to attain for some investigators in LMICs given barriers including journal requirements for mastery of colonial European languages, funding opportunities, and experience in scientific writing that are considered important for their academic promotion and recognition.

Initiatives that go beyond the promotion of fair authorship representation and build scholarship among investigators in LMICs are needed to build research capacity. Such initiatives may include opportunities for mentorship, practical research support including database management, and assistance with statistical analysis, scientific writing, and translation services as implemented by some global health specialty journals, These may reduce ‘avoidable differences’ in academic opportunities, including those that can result in authorship.

In conclusion, global health specialty journals have widely adopted standardised authorship criteria. However, few of these journals have guidelines explicitly addressing authorship equity for research conducted in LMICs and the application of authorship criteria for local contributors to research. The adoption of guidelines to promote equitable authorship practices in work conducted in LMICs by journals is a necessary initial step towards reducing authorship disparities in global health research.

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