# BMJ Global Health

# Authorship equity guidelines in global health journals

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Correspondence to Dr Chris A Rees; chris.rees@emory.edu Equity, justice, and collaboration are widely recognised central ideological drivers of global health. 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'. 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, 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. 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

## **SUMMARY BOX**

- ⇒ Prior studies have demonstrated substantial underrepresentation of authors affiliated with low- and middle-income countries (LMICs) when studies are conducted in LMICs.
- ⇒ Despite most global health specialty journals including general authorship guidelines such as those put forth by the International Committee of Medical Journal Editors, only 17.8% of global health specialty journals included specific language regarding local authorship representation in research conducted in I MICs
- ⇒ 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 and decolonising global health authorship.

the methodology described by Bhaumik and Jagnoor to identify global health specialty journals and conducted a journal search in April 2022. We searched the National Library of Medicine for global health specialty journals using the key terms, "Global Health" [Mesh] OR ("Public Health" [Mesh] AND "Internationality" [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 'interdisciplinary 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, <sup>12</sup> 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. <sup>13</sup>

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  $\geq 3.0$  (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, <sup>4-6</sup> 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. <sup>14 15</sup> 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. <sup>16 17</sup> 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

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Table 1 Characteristics of included specialty global health journals	global health journals						
Journal	Country headquarters	Year established	Impact factor	Open	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	N	2001	3.295	Yes	Yes	Yes	154/609 (25.3)
BMJ Global Health	N	2016	5.558	Yes	Yes	Yes	11/40 (27.5)
Central Asian Journal of Global Health	USA	2012	0.45†	Yes	o <sub>N</sub>	ı	0/23 (0.0)
Clinical Epidemiology and Global Health	India	2013	169.0	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	I	Yes	°N ON	1	16/44 (36.4)
Frontiers in Global Women's Health	Switzerland	2020	1	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	I	Yes	No	I	1/24 (4.2)
Global Health Innovation	South Africa	2018	ı	Yes	No	1	7/13 (53.8)
Global Health Journal (Amsterdam, the Netherlands)	China and the Netherlands	2017	ı	Yes	o <sub>N</sub>	1	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	188.0	Yes	No	ı	(6.7) 87/9
Global Health, Epidemiology and Genomics	USA	2016	I	Yes	Yes	Yes	2/14 (14.3)
Global Health, Science and Practice	USA and Canada	2013	ı	Yes	No	ı	No affiliations listed
Global Journal of Health Science	Canada	2009	I	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	ı	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	1	Yes	Yes	No	No affiliations listed
Globalization and Health	Z	2005	4.185	Yes	Yes	Yes	3/46 (6.5)
Health Policy OPEN	I	2020	ı	Yes	Yes	<sub>S</sub>	3/10 (30.0)
International Health	N	2009	2.473	Yes	Yes	Yes	5/43 (11.6)
International Journal of MCH and AIDS	USA	2012	ı	Yes	Yes	Yes	11/38 (28.9)
International Journal of Travel Medicine and Global Health	Iran	2013	I	Yes	Yes	Free, except for Iranian authors	or 10/25 (40.0) s
International Public Health Journal	USA	2009	ı	Optional	Yes	ī	1/17 (5.9)
							Continued

Table 1 Continued							
Journal	Year Country headquarters established	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	ı	No	No	I	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	Z	2011	4.413	Yes	Yes	Yes	6/63 (9.5)
Journal of Global Health Economics and Policy	Croatia	2021	ı	Yes	Yes	Yes	6/18 (33.3)
Journal of Global Health Reports	子	2017	ı	Yes	Yes	No	5/23 (21.7)
Journal of Global Health Science	South Korea	2019	ı	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	子	1985	ı	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	关	2012	1.990	Optional	No	Yes	9/32 (28.1)
Pathogens and Global Health	A K	2012	2.733	Optional	No	Yes	2/27 (7.4)
PLOS Global Public Health	USA	2021	ı	Yes	Yes	Yes	221/440 (48.0)
Public Health Reviews	Switzerland	1972	188.0	Yes	Yes	Yes	3/30 (10.0)
The Journal of Global Radiology	USA	2015	I	Yes	No	I	5/34 (14.7)
Lancet Global Health	J	2013	26.763	Yes	Yes	Yes	7/30 (23.3)
Tropical Medicine and International Health	J	1996	2.622	No	No No	I	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.



Table 2 Guidelines or language related to authorship in research conducted in low- and middle-income countries (LMICs)

Annals of Global Health BMC Public Health BMJ Global Health Central Asian Journal of Global Health Clinical Epidemiology and Global Health Emerging Microbes & Infections	Yes Yes Yes Yes Yes Yes	Yes Yes Yes No Yes	No Yes Yes	Encourage inclusion
BMJ Global Health Central Asian Journal of Global Health Clinical Epidemiology and Global Health	Yes Yes Yes	Yes No		•
Central Asian Journal of Global Health Clinical Epidemiology and Global Health	Yes Yes	No	Yes	
Clinical Epidemiology and Global Health	Yes			Require inclusion
		Voc	No	
Emerging Microbes & Infections	Yes	169	No	
		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	
nternational Health	Yes	Yes	No	
nternational Journal of MCH and AIDS	Yes	Yes	No	Require inclusion
nternational Journal of Travel Medicine and Global Health	Yes	Yes	No	
nternational Public Health Journal	Yes	COPE	No	
lournal of Disease and Global Health	Yes	COPE	No	
lournal of Epidemiology and Global Health	Yes	Yes	No	
lournal of Global Health	Yes	Yes	No	
lournal of Global Health Economics and Policy	Yes	Yes	No	
lournal of Global Health Reports	Yes	Yes	No	Encourage inclusion*
lournal of Global Health Science	Yes	Yes	No	
lournal of Tropical Pediatrics	Yes	Yes	No	
ancet Planetary Health	Yes	Yes	Yes	Encourage inclusion

Continued



Table 2 Continued

Journal	General authorship guideline	General authorship guideline adheres to ICMJE	Authorship guideline including authors affiliated with LMICs	Nature of local authorship representation guideline
Medicine, Conflict, and Survival	Yes	Yes	No	
One Health (Amsterdam, the Netherlands)	Yes	Yes	No	
Paediatrics and International Child Health	Yes	Yes	No	
Pathogens and Global Health	Yes	Yes	No	
PLOS Global Public Health	Yes	Yes	No	
Public Health Reviews	Yes	Yes	No	
The Journal of Global Radiology	Yes	Yes	No	
The Lancet Global Health	Yes	Yes	Yes	Encourage inclusion
Tropical Medicine and International Health	Yes	Yes	Yes	Require inclusion

\*Unofficial guideline from email correspondence.

COPE, Committee on Publication Ethics; ICMJE, International Committee of Medical Journal Editors,

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. <sup>15</sup> These may reduce 'avoidable differences' in academic opportunities, including those that can result in authorship.

In conslusion, 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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