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Reimagining authorship guidelines to promote equity in co-produced academic collaborations

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ABSTRACT

Authorship of academic papers is a currency that can bring career advantages in academia and other industries. How authorship should be decided is not always clear, particularly in co-produced research with non-academic collaborators, for which existing authorship guidelines are largely silent. In this paper, we critically reflect on what constitutes written authorship in the context of co-produced health research. We present examples from our own work to illustrate the argument we make, including publishing a co-authored paper with non-academic partners. We consider questions of what constitutes authorship and how it is mutually understood. We discuss some of the opportunities and limits to participation and how these might translate into academic authorship as a collaborative research output. Finally, we explore the potential of authorship guidelines as a resource for critical reflection on what we mean by co-produced work and how we recognise contributions to global health research. We suggest that authorship guidelines should be adapted to encourage attribution of co-produced research to include non-academic as well as academic collaborators, and we provide a draft guideline for how this might be done.

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Introduction

Academic paper authorship can bring kudos and career advantages in academia and other industries. However, how authorship should be decided is not always clear, particularly in co-produced research with non-academic collaborators, for which existing authorship guidelines are largely silent. Meanwhile, funding bodies and agencies assert that collaboration and co-production of research with communities are important for research equity and impact (National Institute for Health Research, 2018), and in some cases community involvement is a condition of research funding (National Institute for Health Research, 2020). Co-produced research with community members allows collaborators to contribute towards the research agenda and includes their voices in decision-making processes (Jinks et al., 2016; Matenga et al., 2021) including on types of outputs. Co-produced research may involve actors with different epistemologies and disciplinary frameworks, and ‘traditional’ concepts of authorship are sometimes hard to align with the practicalities of how the work is co-produced. How should we understand authorship under conditions of co-production of research involving both academic researchers and non-researchers? Should

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authorship arrangements in academic writing recognise the co-produced nature of the research? And if so, how should this be done?

According to one authoritative guideline on authorship, an author makes ‘substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work’, as well as drafting or critically revising the work for important intellectual content, approving it for publication and agreeing to be held accountable for it (International Committee of Medical Journal Editors, 2019). In this paper, we critically reflect on decisions about authorship of academic papers in the context of collaborative health research with academic and non-academic partners – the latter defined here as anyone not employed to write academic publications. We further consider whether authorship guidelines should be adapted to accommodate co-produced research more explicitly and if so, how this might be achieved. By including our own draft guideline for academic authorship, we hope to offer a useful resource in-progress for co-produced health research.

Inequitable academic authorship

Social science research is a collaborative endeavour, conducted across institutions, disciplines, networks and countries, sometimes in partnership with non-academics and/or communities affected by the ‘problem’ or phenomenon being investigated. Likely outputs of this collaboration include multi-author research papers. Collaborative partnerships involving non-academic collaborators would ideally include careful attribution of ideas and contributions to ensure equitable practices with respect to assigning authorship of academic papers. In practice, however, a range of structures exist that disadvantage researchers from certain backgrounds.

Power differentials in co-authorship often derive from ‘deep structural inequalities’ manifested via economic, social and cultural capital, and these differentials seep into norms and beliefs that help legitimise hierarchy and authority (Sen et al., 2020, p. 1). Inequitable academic authorship can entrench other forms of inequity, for example by affecting academic career progression, where ‘career rewards based on publication counting’ (Tarkang et al., 2017, p. 36) mean that first-author publications are vital for academic employment, promotion and tenure (Smith et al., 2014). Unethical authorship practices are widespread (Martinson et al., 2005), with unfair authorship allocation including ‘omissions of names of contributors, inappropriate listing order of authors and gift authorship’ (Okonta & Rossouw, 2013, p. 5). ‘Gift’ or ‘honorary’ authorship sees senior and usually powerful individuals added to research publications by dint of their ostensible, rather than active or meaningful, involvement (Baskin & Gross, 2011; Schroter et al., 2020). Authorship ‘gaming’, where rankings, citations and h-indexes are manipulated to increase readership, prestige and influence, are symptomatic of the academic inequities that underlie such poor practice (see Chapman et al., 2019; Marušić et al., 2011).

Assigning appropriate authorship is ‘an important part of good research practice’ and learned society and journal guidelines exist to support this (British Sociological Association, 2001; Committee on Publication Ethics, 2021; International Committee of Medical Journal Editors, 2019). The ICMJE guideline is widely adopted as a model of good practice in health research. It stipulates that authorship credit should be given to those who make ‘substantial contributions’ to the design and/or conduct of research, and the reporting of research (International Committee of Medical Journal Editors, 2019). However, it still leaves gaps when it comes to recognising the contribution of some operational research partners, including ‘health programme managers and policy makers in low-income countries’ (Zachariah et al., 2013, p. 1026) and other non-academic collaborators such as representatives from focus communities involved in co-producing research.

Authorship contributions in health research also occur in patterns that disadvantage researchers from low- and middle-income countries (LMICs), particularly women (Lundine et al., 2018; Morgan et al., 2019), and ‘mimic old colonial relationships and perpetuate the marginalisation of

African voices', with 'authorship, recognition, awards and funding' allocated disproportionately to researchers in the Global North (Fofana, 2020, p. 4). When it comes to international collaboration, Global South¹ researchers are less likely to be the initial funding grantee and are therefore disadvantaged compared to Global North partner(s) whose financial stake dictates direction (Reidpath & Allotey, 2019; Sinah Theres, 2017). Where funding from Global North institutions is directly allocated to Global South partners, other issues emerge; Crane et al. argue that 'U.S. fiscal administrative practices may drain rather than build capacity at African universities' (2018, p. 1422). A bibliographical analysis of 'collaborative' health research conducted in Africa found that only half of publications were led by first authors affiliated to an institution in the country of research (Hedt-Gauthier et al., 2019). One systematic review of authorship contribution found that African researchers are underrepresented in first and last authorship positions even in papers published from research conducted in Africa (Mbaye et al., 2019). As a result of institutional or interpersonal inequities, LMIC researchers may 'accept, or feel obliged to accept, a lower ranking of authorship, even when their contribution is more substantive and deserving of higher authorship ranking' (Smith et al., 2014, p. 4).

Researchers in countries where English is not widely spoken (including many low- and middle-income countries) may be disadvantaged by the ICMJE requirement for article contributors to draft some or all of an article in English. Thus contributors 'may still fall short of satisfying all four ICMJE criteria even if ample opportunity is given to write, revise and approve the manuscript because of limited knowledge of the English language' (Smith et al., 2014, p. 3). The authors suggest that one way to fulfil authorship requirements of manuscript revision could be achieved through verbal discussions to agree that the manuscript properly conveys the research, reducing dependence on English writing abilities. Meanwhile, journals in languages other than English are less likely to appear in international databases and do not receive comparable international readership (Smith et al., 2014).

Whether crossing different geographical or economic territories or in a single site, area or country, collaborative research that generates papers written by multiple authors from different institutes, disciplines or cultural backgrounds necessitates transparent paper writing processes (Frassl et al., 2018). This involves active listening, language awareness and checking mutual understanding of authorship conventions: being as 'open as possible about deadlines and expectations (including authorship) helps to avoid misunderstandings and conflict' (Frassl et al., 2018, p. 5). However, authorship guidelines routinely lack specific information or guidance on how to navigate relationships where power disparities are abused to manipulate authorship order. For example, the suggestion that gathering team members' expectations for the paper be initiated by the research project leader (Frassl et al., 2018) hints at the difficulties of moving beyond a hierarchical structure led by one principal investigator (PI), where junior or non-project-host collaborators may not have a say in the authorship attribution process. Again, this is an area where entrenched power differentials – whether via seniority, institution, sector or setting – can be reinforced, with the PI in control of setting the agenda for authorship outcomes.

Contributions of non-academic partners, and how these collaborators should be recognised, are generally absent from authorship guidelines. Collaboration with non-academic partners may ensure research is relevant (Miles et al., 2020), unlock on-the-ground expertise, and facilitate the research (Zarowsky, 2011). The contribution of 'technical tasks' to research work, including for example recruitment, are often not recognised (Smith et al., 2014), and are not generally considered criteria for authorship.

We found no standard authorship guidelines that explicitly address authorship questions arising from highly participatory projects such as how to recognise non-academic participants who provide substantive contributions, for example by co-producing data (e.g. in interviews, translations, etc.) and analysis (e.g. through discussion of emerging findings). As more research is conducted using participatory processes and in collaboration with non-academic partners, these omissions will become increasingly problematic.

Exploring academic collaborations: 'This Sickle Cell Life' as an illustrative example

We draw on our experiences from a recent co-produced research project, 'This Sickle Cell Life', which used qualitative methods to explore how young people with sickle cell disorder transition from paediatric to adult healthcare services in the UK. The project also encompassed the personal and interpersonal experiences of young people as they moved into adulthood, in terms of their schooling or further/higher education, work, home lives and their social relationships. We collated our reflections and experiences of 'This Sickle Cell Life' for this article during the COVID19 pandemic through a series of remote discussions online among ourselves (written and spoken). As part of this process, we discussed our experiences *vis-à-vis* critical reflection on content identified and reviewed via desk-based research on authorship conventions, participation and publication ethics.

We are academic researchers from social science (SM, AR) and interdisciplinary public health research (CM) background who co-produced this research project with two patient experts with sickle cell disorder, and a patient carer expert. All three of our collaborators brought extensive knowledge of sickle cell disease and life with sickle cell as well as how to navigate healthcare services. They also had an experience of advocacy for sickle cell healthcare improvement. We have detailed elsewhere the different ways in which we worked together throughout the project, and our flexible approach to collaboration and co-producing knowledge with them (Miles et al., 2020; Miles et al., 2018; Renedo et al., 2020). To summarise: the project was co-produced throughout, with the patient and carer experts involved in the initial funding application process, and participating (with payment) at different stages from planning the research to analysis, dissemination, and translation of the findings into policy and practice. The academic and patient expert teams collaborated on a full-day dissemination workshop with youth groups, clinicians and educators. The patient experts presented on their involvement in the research and participated in panels and other discussions.

While the project was participatory, the team did not initially anticipate co-authoring academic publications as part of the collaborative process between the academics and the patient and carer experts, with more focus on stakeholder and public engagement outputs such as co-authoring lay and 'implications for practice' publications (e.g. blogs and commentaries). We had assumed co-authoring academic publications was a dry and arduous activity for which patient and carer expert collaborators would not necessarily have time or interest. However, the project opened up spaces for collaboration with a range of stakeholders including members of the public, patients and carers, which developed into collaborative written academic outputs. This gave us an insight into some of the authorship gatekeeping issues inherent in academic publishing, as well as prompting our own discussions about how to standardise equitable authorship for all parties involved in collaborative research, particularly when working with non-academic partners for whom these outputs might not be so important or necessary. Here we describe the process of navigating equitable authorship outputs in co-produced research and reflect on implications for future collaborative research work.

Equitable authorship outputs

We collaborated with non-academic authors to publish an academic article. While our research prioritises active engagement with a range of stakeholders including patients and the public, it was the process of co-production itself that led us to collaborate in this way. The patient and carer experts' input into the 'knowledge products' of *This Sickle Cell Life* (including reports, blogs, tweets, events and papers) ensured we co-produced knowledge centred around patient experiences and drew out implications for practice along dimensions that the patient experts knew to be most important based on their own experience. When we discussed the findings as a group with the patient and carer experts, they contributed a number of substantive insights which would ordinarily merit authorship if they were 'traditional' academic collaborators. We consulted our collaborators to see if authorship would be something that they would be interested in

(on a paid basis), aware that while authorship bore value for us, it might not be valuable for them. We were aware that academic publications are a specific and inflexible output, constrained by normative ideas of what counts as legitimate forms of research evidence within academia.

Co-authors were interested in academic co-authorship at least in part because of the contribution that they felt it could make to sickle cell healthcare improvement. Having established that co-authorship was of interest, we explored the ‘how’ of publishing sickle cell findings with non-academic co-authors without tokenism or ‘gift’ authorship. As a highly specific and complex process, academic authorship relies – often in exclusionary ways – on specific knowledges that sit within the academy. Our patient experts were keen to collaborate, but the dialogue through which we co-produced knowledge followed a conversational and critical reflective format which moved away from conventional written drafts, where authors might write passages, add comments or make tracked changes on a shared document. We discussed and agreed with them on a process that aimed to improve accessibility while doing justice to their contribution to facilitate a sense of ownership for all parties. Our focus was on developing ways of working that were flexible and not unduly burdensome for our collaborators.

We met with all three collaborators and decided as a group the most pertinent themes in our findings related to unscheduled hospital care visits for young people with sickle cell. Having discussed preliminary findings and themes through various meetings of the academic and patient expert teams, SM & AR drafted a paper framework with key themes and sent it to the patient experts for input. They were invited to read the analytical themes and then input in a way of their choosing – either written comments, edits or ideas in-text, or a phone meeting to add comments, edits, or ideas verbally with SM adding them to the document, or an in-person meeting to add comments, edits or ideas. All three patient and carer experts chose an in-person meeting with the academic staff. These meetings were incredibly rich in detailed contributions to, interpretations of, and personal reflections on, the germinating results themes laid out. Patient experts noted areas in which participant interview data reflected their own experiences, and added verbal comments that further enriched the paper and provided enhanced context for the interview excerpts. We wove these verbal reflections, edits and viewpoints into our Discussion section using first-person singular and plural vocabulary, highlighting our patient expert input in each discussion theme.

What we were ‘working through’ in our co-production journey was the process of collaborative authorship, rather than the unexpected academic gatekeeping that followed. We met with some resistance when we tried to publish the paper. One reviewer critiqued what they felt to be overly personal accounts of sickle cell. Having noted and ostensibly admired our co-production ethos, they nevertheless highlighted patient expert passages that they felt fell short of the criteria of objective research. They questioned the fact that our collaborators had contributed using a first-person narrative (see excerpt). As part of our co-authorship process, we had agreed as a group that the first-person narrative presented the clearest way to incorporate experience-based knowledge, but this style choice appeared to signal unacceptable subjectivity.

Our findings also support the contention by Elander et al. (2011) that a lack of respect for the patient from the health provider inhibits relationships of trust. Those of us with sickle cell (CA; NW) have experienced these barriers. We are experts in our own bodies and know not only when a sickle cell crisis is imminent, but also when related health complications are developing. (Miles et al., 2020, p. 550)

In amplifying the expert knowledge of people from relevant communities, we were communicating ‘real-life’ knowledge *contra* academic research conventions. Reviewers’ comments reflected a particular understanding of academic conventions, and could be interpreted as questioning the legitimacy of co-author contributions as sufficiently objective. We made the case that first-person narratives were a deliberate way to articulate our collaborators’ voices and as such were key to the paper, and the journal ultimately agreed to publish our article with the first-person contributions retained (Miles et al., 2020). Our experiences overall have reinforced our desire to find ways to improve equity in academic authorship in future projects. We start this conversation below,

drawing on our past experience of working to generate equitable knowledge dialogue and how it happens in practice.

Discussion

The combination of our experiences – in the illustrative project mentioned above, and in other projects – and the literature on authorship point to key dimensions of authorship guidelines that need to be considered to achieve more equitable practices more broadly.

Thinking about authorship as an output of collaborative research raises many questions. One approach is simply to name *everyone* involved as an author – or replace the notion of author altogether with ‘contributor’, in a format resembling film credits (Smith, 1997). However, both options risk ‘diluting’ more substantive contributions and further may risk all contributions being devalued in a context where scarcity is important to retain value (e.g. ‘space’ in the ‘top’ journals is limited). Large author lists in medical field publications is an academic convention that nevertheless tends to flatten differentiation between contributions. In some contexts where mechanistic (and simplistic) rules are applied, first, second or last position co-authorship contributions tend to be seen as the most meaningful (Mongeon et al., 2017); other authorship positions by contrast may be seen as insubstantial or tokenistic and not ‘count’. These ideas suggest that authorship position correlates to prestige in the contemporary academic publication system. Relatedly, without a ‘guarantor’ or identifiable lead contributor(s), there is a danger that ‘overall responsibility will be lost’ (Smith, 1997, p. 992). In *This Sickle Cell Life* we were committed to non-tokenistic approaches to facilitate generative dialogue to allow us to access and combine the different experiential, academic, theoretical and ‘biomedical’ knowledges held to different degrees by different individuals within the authorship team. We remain committed to the idea of ensuring a way to recognise substantive contributions to knowledge beyond ‘traditional’ academic approaches. However, we also recognise that outside of the privileges granted by a relatively generous funder (UK NIHR) and Global North setting, structural constraints may prevent many collaborators from being able to make the kinds of contributions that engender equitable authorship.

Tensions can emerge between academic journals’ emphasis on the need to identify individual authors’ contributions versus the collective nature of the knowledge co-produced via the research, given the blurred boundaries and overlaps of who contributes what to research work and how they do so. This tension may be one of the reasons why some – though not all – scientific journals develop specific authorship policies, although even with policies in place, definitions of contributions vary: by one measure, only 31% of sampled journals explicitly prohibit gift, guest or ghost authorship (Resnik et al., 2016). Relatedly, who has the right to establish who deserves to be identified as a co-author? How can early-career researchers (ECRs), minoritised researchers and patient experts (or ‘experts by experience’, Liberati et al., 2021) be better supported to stake a claim on authorship in the context of power imbalances and institutional hierarchies? How then can we collaboratively decide which project outputs – including but not limited to formal academic publications – deserve prioritisation?

There are numerous structural barriers to full collaboration that have an impact on authorship. The structural barriers to collaboration in general can be revealed in decisions about authorship – they are highlighted in who makes authorship decisions, and who benefits from them, and the structures and conventions that support and entrench inequities and devalue collaborative in favour of competitive working. Our approach (currently) is to define an ‘author’ as someone who has made a substantive *contribution to knowledge* that is set out in the particular paper. This differs from a more biomedical approach, where in some cases all team members are named on every paper based on their contribution to the larger project or lab rather than the research exercise/writing of the paper itself. We are open to the latter approach in certain circumstances, and would argue that transparency in how authorship is allocated is even *more* important in cross-disciplinary research given the ways in which academic conventions can differ.

Generating and recognising dialogue

What does collaboration mean for knowledge and for authorship? Health knowledge is a composite of different types of knowledges created through dialogue (Renedo et al., 2018); knowledge is socially produced through relationships with others (Jovchelovitch, 2006). Dialogues between health researchers, care providers and patients or communities can co-produce hybrid and more productive forms of knowledge in which patients' lived experiences and affective forms of knowledge merge and combine with biomedical and evidence-based knowledge (Renedo et al., 2018).

Experiential knowledge contributions can be seen as more legitimate when filtered by 'legitimate' actors (e.g. paid academics) (Renedo et al., 2018). Authorship guidelines note the need to be able to identify each author's contribution (International Committee of Medical Journal Editors, 2019) and in our project, using the first-person voice allowed us to explicate this. Yet this approach is not included in any guidelines, perhaps due to the risk of being seen as insufficiently objective, or simply because co-authorship with non-academic partners has not been a concern of guideline writers. Our experiences suggest that for some, abstracting the 'voice of experience' from its owner may be a way to add a gloss of 'objectivity' without changing either the interpretation or the language other than removing the use of the first-person narrative.

An alternative might be to make explicit where non-academic collaborators offer their viewpoints or knowledge(s) via quotations. However, incorporating collaborators' perspectives via quotations misses an opportunity to attend to the co-produced nature of the knowledge conveyed in the publication, and paradoxically locates these collaborator(s) outside of the central 'voice' of the publication's authorship. We chose instead to integrate all voices into the text, but recognise that this may not always be possible, and it generates its own issues: questioning the use of first-person narrative could be interpreted as a reviewer questioning the legitimacy of such contributions as sufficiently objective. One implication is that a paper might be more acceptable if the 'voice of experience' only appears in disguise or filtered through the voice of an authority figure – one reason why some students are taught that using the first-person tense is unacceptable in science writing, to maintain a façade of objectivity. This is not a new concept in the academy – feminist scholars have made these or similar points for many years, for instance. However, it is not commonly discussed in health research, where 'objectivity' is highly prized – for good reason – but where this can tip into excluding forms of knowledge that can only be conveyed through and by the 'voice of experience'.

Language is also a key concern for equitable authorship. The author must be able to write in an academic style and possibly also in English. Yet our publishing experience shows that even when all authors can write in English, not all authors are granted equal legitimacy in academic production. The writing of lived expert knowledge may be less valued because of the type of personal and sometimes emotive language needed to convey these experiences. In knowledge co-production, the implication may be that the 'voice of experience' or the non-academic is insufficiently qualified to be named as a co-author regardless of the part they have played in generating the knowledge set out in the publication.

Aware of how the authority of different voices plays out in co-production work, we engaged with our non-academic co-authors in ongoing reflection on our involvement processes. Co-production of *This Sickle Cell Life* made the final products more meaningful in two ways: first, more academically meaningful in that co-production improved the data collected and deepened its interpretation; and second, that our final products were more meaningful 'experientially', i.e. in a way that was directly relevant to patient experience: our knowledge products included elements explicitly focused around topics that were the most salient for people with sickle cell and, by extension, for healthcare providers who wish to improve services.

Academic authorship conventions can limit innovative collaborative ways of working and prevent the inclusion of voices central to co-produced knowledge. It leads to the larger issue of academic gatekeeping, who 'holds' health knowledge and who is able to access it and who has the legitimacy to 'co-author' or co-produce health improvements based on whether their knowledge is seen as valuable. Traditional conceptualisations of authorship also leave dynamic, innovative and participatory routes to authorship under-unexplored. Would adding non-academic co-authors

to a journal publication ‘dilute’ or otherwise devalue the contributions of the academic co-authors? Do journals that encourage non-academic co-authors become devalued as academic currency? What happens when LMIC researchers’, participants’ or lay experts’ criteria for authorship are not mirrored by the academic status quo?

Recognising different types of co-authorship

Paying careful attention to authorship via co-produced work is one way in which we can improve how we do community participation and help mitigate geographical, institutional and socioeconomic hierarchies. This is not to say that all papers should involve as authors all people who have contributed to knowledge generation; we simply suggest that authorship be more transparently recognised as a form of currency that can help entrench or reinforce inequities, and as such should be treated with care. Authorship decisions should be made with a focus on equity and explicit attention to the ways in which exclusion from authorship lists can follow patterns of marginalisation. This is important, as uneven authorship not only has economical/material implications for those disadvantaged in the process, but it also has social-psychological implications for mutual respect. One common route to navigate these issues is through the adoption of academic authorship guidelines.

We are developing authorship guidelines that are more ‘fit for purpose’ for our current co-produced research where we are working with partners in multiple different settings, seeking to improve transparency, open up discussion and ensuring clarity on how authorship decisions are made. The overall aim is to ensure that all parties are recognised appropriately for their contributions either via authorship or acknowledgements, as well as to find a way to recognise the more experiential contributions, while maintaining standards that are acceptable to the international journals we publish in. This process opens up difficult questions to ask ourselves about the value we attach to a written research publication – for those of us on fixed-term research positions they hold real, monetary value for our contracts and careers. Our most recent project, a co-creation consortium, was funded through UK aid which meant that we were also reflecting on some of the challenges and awkwardness inherent in an attempt to develop equitable guidelines in the context of the colonial roots of foreign aid and the colonial roots of our Global North institution (Hirsch, 2021).

We examined existing guidelines and noted that there were specific points where clarification was needed, or where we envisaged problems with giving due credit to collaborators based on past experience in order to draw up a draft set of guidelines aiming at more equitable authorship decisions and processes. We noted relevant elements of the ICMJE, COPE and BSA guidelines where we needed amendments or more clarity, reflecting the experiences of others who have explored the extent to which journals’ authorship attribution guidelines are (mis)understood (Kornhaber et al., 2015; Street et al., 2010). For example, the BSA argues that ‘everyone who is listed as an author should have critically reviewed successive drafts of the paper and should approve the final version’. We propose that alternatives might be provided for authors who are not familiar with reading academic papers, for example academic authors presenting the paper and soliciting substantive feedback via discussion from others rather than necessarily requiring it in writing. This would recognise that not all forms of knowledge based on lived experience ‘fits’ the confines of traditional academia, while recognising the value that these knowledges nevertheless hold.

Meanwhile, noting the (ultimately abandoned) attempt of the BMJ at declaring the concept of ‘authorship’ dead altogether and replacing it with ‘contributorship’ (Smith, 1997), but recognising the good intentions behind this initiative, we propose that the author list for our work could include the name of our consortium or research group as an author on every paper, rather than individual authors, as recognition that knowledge generation is a collective/collectivist rather than individual/individualist endeavour, even though its manifestation in papers may be individual or selective. Although this practice is common in biomedical and physical sciences, it remains unusual in social science, health and interdisciplinary fields. Therefore clear explication of what this kind of authorship format entails is doubly important so that all contributors share understanding of relevant conventions.

We also examined guidelines for author order. For example, BSA argues that

Those who have made a major contribution to analysis or writing (i.e. more than commenting in detail on successive drafts) are entitled to follow the first author immediately; where there is a clear difference in the size of these contributions, this should be reflected in the order of these authors. (British Sociological Association, 2001)

We noted that this may differ from public health/biomedical journal conventions (e.g. senior author being next most significant after the first author) and propose to provide explicit author contribution statements in our work. We propose to depart from BSA guidelines that instruct that ‘All others who fulfil the criteria for authorship should complete the list in alphabetical order of their surnames’ (British Sociological Association, 2001). Instead, we propose ordering authors based on the extent of input and rotate authorship for equal contributions to avoid inadvertently disadvantaging people with later surnames, especially where this might relate to country/language (Einav & Yariv, 2006). A more radical alternative would be to use pseudonyms that ensure equal contributions are recognised, such as geographers Caitlin Cahill, Sara Kindon, Rachel Pain and Mike Kesby who have published together as ‘Mrs Kinpaisby’ (2008, p. 292) as a way of ‘imagining the communiversity’. Academic publishing behemoths have been reluctant to promote the practice in the intervening decade; as Helen Kara (2021) notes, academic conventions tend to prescribe orthodoxy.

For acknowledgements, BSA reflects ICMJE guidelines, which suggest that contributors who do not meet all four authorship criteria (see Introduction, above) should be acknowledged rather than recognised as author. Here we added a clause to our guideline that named individuals in the acknowledgements should be informed of their inclusion in case they want to withdraw their name. This is important considering the sensitive, highly personal and often taboo research conducted in sexual and reproductive health. We also added a requirement that translators and interpreters be recognised by name.

We have drawn up preliminary guidelines to accompany our amended ICMJE/BSA combined guidelines as a starting point (Box 1). We incorporate elements from ICMJE, COPE and BSA, explicating co-production contributions. We will develop this work with our partners to understand where further clarity is needed, or where important contributions do not fit into the framework.

Box 1. Initial guideline for academic authorship in collaborative health research.

1. The nature of academic publication processes and authorship conventions should be explained to all partners so that the meaning of authorship and involvement is clear to all parties regardless of university affiliation or discipline.
2. The project research/writing team should list details of expected papers early in any sub-project, including expected authorship and author order (especially first author).
3. The rationale for authorship and author order should be transparent. All authors must make a substantive contribution to the intellectual content of the publication.
4. Non-academic project partners should be invited to co-author the work, with plans in place early on about how to handle suitable contributions. Level of input required must be discussed and agreed early on to ensure clarity on how authorship is allocated.
5. Contributors whose contribution does not in the final product meet the criteria for authorship should be named in the acknowledgements. Named individuals must be informed so that they can withdraw their name if they wish.
6. Where used, translators/interpreters must be named in the acknowledgements.
7. Lead author must draft the paper, with input from other authors, and be responsible for submitting the paper and making any revisions in response to referee comments. The lead author must not submit any paper without the agreement of the named authors.
8. All academic publications should contain a statement about the contribution of each named author.
9. The PI must approve submission of academic articles from the project and must be named as author if criteria for authorship are met.
10. Academic journal publication must be supplemented with publication of findings in other channels to ensure inclusive dissemination (e.g. tweets, policy document, media article, public workshop).
11. The particular needs of members of the team should be considered in arranging publication strategy (e.g. need to gain experience of lead authorship). However, any named author must fulfil the requirements for their authorship position.
12. Sole authorship will not generally be possible or desirable within the project because of the collaborative nature of the work and our recognition that knowledge is co-produced through these collaborative relationships.
13. Consider adding the consortium or project name to all work with numerous contributors who do not meet the criteria for authorship and listing key contributors to the paper in the acknowledgements.
14. In the event of any disagreements or confusion about authorship or author order, please refer to these guidelines within the writing team. If there is still confusion, please request assistance from the PI as the question may need to be referred for a wider discussion and/or the guidelines may need to be clarified.

We hope that being explicit about authorship processes will help mitigate some of the potential tensions between individual versus collective contributions, with individual voices recognised and formally incorporated. We also want to draw readers' attention to the issue of timeframes, whether in terms of limited timeframes within which co-produced research is expected to happen (Miles et al., 2018), limited timeframes in which to pursue ethnographic health research (Cupit et al., 2018), or a limited timeframe for a project's overall funding. It is questionable whether it is ethical to ask research partners to work on publications for projects that have already been completed and for which they are no longer being paid, but some work will inevitably occur after the end date of the project itself. We would argue that funders should adopt the practice of allowing spending on grants after the end date for dissemination activities – this is already done by some funders (including NIHR, who funded *This Sickle Cell Life*) and would help to ensure research partners are paid for their work and are not excluded from later publications because of a requirement to work pro bono.

Conclusion

Collaborative academic authorship can be productive and mutually enriching, but the terms and processes of collaboration deserve greater attention. In this paper, we have explored what a more flexible, cooperative model for authorship can entail in the context of co-produced research, as one route to answering calls for further research into authorship in global health research (Dimitris et al., 2021; Kelaher et al., 2016; Smith et al., 2014).

We have explored some of the ways in which collaborative academic authorship can reinforce existing structural and social inequalities, including those relating to gender, class, race and seniority, and examined some of the guidelines that try to rebalance research collaboration. We have also suggested our own, drawing on experiences from our co-produced research and conversations with collaborators. What we have presented is far from unequivocal guidance on equitable co-authorship. Yet if to '(re)imagine is to re-vision, re-consider, re-evaluate, rework, think, re-do, re-make, re-structure' (Dutta, 2020), we hope we have helped to reimagine some of the congealed hierarchies and privileges that underpin the way that collaborative academic authorship has been hitherto operationalised.

Interrogating some of the conceptual and ethical dimensions of equitable authorship and the tensions – including sometimes insurmountable imbalances – that inhibit a more liberatory approach to authorship show how more equitable routes to academic authorship collaboration are possible. We also hope that our reflections can start a conversation about how research communities consider strategies for equitable authorship in global public health. Given the diversity of voices that exist in this space, amplification of those that are chronically less-heard will increase the breadth of knowledge in the field for universal benefit.

Note

1. Definitions of the 'Global South' may be symbolic or representational as much as they are geographical. As Kloß (2017) suggests, the Global South 'is not an entity that exists per se but has to be understood as something that is created, imagined invented, maintained and re-created by the ever-changing and never fixed status positions of social actors and institutions'.

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Ethics approval

The original study was approved by the London School of Hygiene & Tropical Medicine (Ref 10107) and NHS (REC 15/LO/1135) research ethics committees.

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References

- Baskin, P. K., & Gross, R. A. (2011). Honorary and ghost authorship. *BMJ*, *343*, d6223. <https://doi.org/10.1136/bmj.d6223>
- British Sociological Association. (2001). *Authorship Guidelines*. BSA. <https://www.britisoc.co.uk/publications/guidelines-reports/authorship-guidelines/>
- Chapman, C. A., Bicca-Marques, J. C., Calvignac-Spencer, S., Fan, P., Fashing, P. J., Gogarten, J., Guo, S., Hemingway, C. A., Leendertz, F., Li, B., Matsuda, I., Hou, R., Serio-Silva, J. C., & Chr Stenseth, N. (2019). Games academics play and their consequences: How authorship, h-index and journal impact factors are shaping the future of academia. *Proceedings of Biological Sciences/The Royal Society*, *286*(1916), 20192047. <https://doi.org/10.1098/rspb.2019.2047>
- Committee on Publication Ethics. (2021). *Promoting integrity in scholarly research and its publication*. COPE.
- Crane, J. T., Andia Biraro, I., Fouad, T. M., Boum, Y. 2nd, Bangsberg, D. R. (2018). The 'indirect costs' of underfunding foreign partners in global health research: A case study. *Glob Public Health*, *13*(10), 1422–1429. [doi:10.1080/17441692.2017.1372504](https://doi.org/10.1080/17441692.2017.1372504)
- Cupit, C., Mackintosh, N., & Armstrong, N. (2018). Using ethnography to study improving healthcare: Reflections on the 'ethnographic' label. *BMJ Quality & Safety*, *27*(4), 258–260. <https://doi.org/10.1136/bmjqs-2017-007599>
- Dimitris, M. C., Gittings, M., & King, N. B. (2021). How global is global health research? A large-scale analysis of trends in authorship. *BMJ Global Health*, *6*, 1. <https://doi.org/10.1136/bmjgh-2020-003758>
- Dutta, D. (2020). *(Re)imagining research, activism, and rights at the intersections of sexuality, health, and social justice*. Taylor and Francis Group. https://think.taylorandfrancis.com/special_issues/reimagining-research/?utm_source=TFO&utm_medium=cms&utm_campaign=JPG15743
- Einav, L., & Yariv, L. (2006). What's in a surname? The effects of surname initials on academic success [review]. *Journal of Economic Perspectives*, *20*(1), 175–188. <https://doi.org/10.1257/089533006776526085>
- Elander, J., Beach, M. C., & Haywood, J. C. (2011). Respect, trust, and the management of sickle cell disease pain in hospital: Comparative analysis of concern-raising behaviors, preliminary model, and agenda for international collaborative research to inform practice. *Ethnicity and Health*, *16*(4-5), 405–421.
- Fofana, M. O. (2020). Decolonising global health in the time of COVID-19. *Global Public Health*, 1–12. <https://doi.org/10.1080/17441692.2020.1864754>
- Frassl, M. A., Hamilton, D. P., Denfeld, B. A., de Eyto, E., Hampton, S. E., Keller, P. S., Sharma, S., Lewis, A. S. L., Weyhenmeyer, G. A., O'Reilly, C. M., Lofton, M. E., & Catalán, N. (2018). Ten simple rules for collaboratively writing a multi-authored paper. *PLoS Computational Biology*, *14*(11), e1006508. <https://doi.org/10.1371/journal.pcbi.1006508>
- Hedt-Gauthier, B. L., Jeufack, H. M., Neufeld, N. H., Alem, A., Sauer, S., Odhiambo, J., Boum, Y., Shuchman, M., & Volmink, J. (2019). Stuck in the middle: A systematic review of authorship in collaborative health research in Africa, 2014–2016. *BMJ Glob Health*, *4*(5), e001853. <https://doi.org/10.1136/bmjgh-2019-001853>
- Hirsch, L. A. (2021). Is it possible to decolonise global health institutions? *Lancet*, *397*(10270), 189–190. [https://doi.org/10.1016/S0140-6736\(20\)32763-X](https://doi.org/10.1016/S0140-6736(20)32763-X)

- International Committee of Medical Journal Editors. (2019). Recommendations for the conduct, reporting, editing, and publication of scholarly work in medical journals. *ICMJJE*. <http://www.icmje.org/>.
- Jinks, C., Carter, P., Rhodes, C., Taylor, R., Beech, R., Dziedzic, K., Blackburn, S., Hughes, R., & Ong, B. N. (2016). Patient and public involvement in primary care research - an example of ensuring its sustainability. *Res Invol Engagem*, 2, 1. <https://doi.org/10.1186/s40900-016-0015-1>
- Jovchelovitch, S. (2006). *Knowledge in context: Representations, community and culture* (1st ed.). Routledge.
- Kara, H. (2021). A simple guide to ethical co-authorship. *LSE Impact Blog*. <https://blogs.lse.ac.uk/impactofsocialsciences/2021/03/29/a-simple-guide-to-ethical-co-authorship/>.
- Kelaher, M., Ng, L., Knight, K., & Rahadi, A. (2016). Equity in global health research in the new millennium: Trends in first-authorship for randomized controlled trials among low- and middle-income country researchers 1990–2013. *International Journal of Epidemiology*, 45(6), 2174–2183. <https://doi.org/10.1093/ije/dyw313>
- Kinpaisiy, M. (2008). Taking stock of participatory geographies: Envisioning the communiversity. *Transactions of the Institute of British Geographers*, 33(3), 292–299. <https://doi.org/10.1111/j.1475-5661.2008.00313.x>
- Kornhaber, R. A., McLean, L. M., & Baber, R. J. (2015). Ongoing ethical issues concerning authorship in biomedical journals: An integrative review. *International Journal of Nanomedicine*, 10, 4837–4846. <https://doi.org/10.2147/IJN.S87585>
- Liberati, E., Richards, N., Parker, J., Willars, J., Scott, D., Boydell, N., Pinfold, V., Martin, G., Dixon-Woods, M., & Jones, P. (2021). Remote care for mental health: Qualitative study with service users, carers and staff during the COVID-19 pandemic. *BMJ Open*, 11(4), e049210. <https://doi.org/10.1136/bmjopen-2021-049210>
- Lundine, J., Bourgeault, I. L., Clark, J., Heidari, S., & Balabanova, D. (2018). The gendered system of academic publishing. *The Lancet*, 391(10132), 1754–1756. [https://doi.org/10.1016/S0140-6736\(18\)30950-4](https://doi.org/10.1016/S0140-6736(18)30950-4)
- Martinson, B. C., Anderson, M. S., & de Vries, R. (2005). Scientists behaving badly. *Nature*, 435(7043), 737–738. <https://doi.org/10.1038/435737a>
- Marušić, A., Bošnjak, L., & Jerončić, A. (2011). A systematic review of research on the meaning, ethics and practices of authorship across scholarly disciplines. *PLoS One*, 6(9), e23477. <https://doi.org/10.1371/journal.pone.0023477>
- Matenga, T. F. L., Zulu, J. M., Corbin, J. H., & Mweemba, O. (2021). Dismantling historical power inequality through authentic health research collaboration: Southern partners' aspirations. *Glob Public Health*, 16(1), 48–59. <https://doi.org/10.1080/17441692.2020.1775869>
- Mbaye, R., Gebeyehu, R., Hossmann, S., Mbarga, N., Bih-Neh, E., Eteki, L., Thelma, O. A., Oyerinde, A., Kiti, G., Mburu, Y., Haberer, J., Siedner, M., Okeke, I., & Boum, Y. (2019). Who is telling the story? A systematic review of authorship for infectious disease research conducted in Africa, 1980–2016. *BMJ Global Health*, 4(5), e001855. <https://doi.org/10.1136/bmjgh-2019-001855>
- Miles, S., Renedo, A., Augustine, C., Ojeer, P., Willis, N., & Marston, C. (2020). Obstacles to use of patient expertise to improve care: A co-produced longitudinal study of the experiences of young people with sickle cell disease in non-specialist hospital settings. *Critical Public Health*, 30(5), 544–554. <https://doi.org/10.1080/09581596.2019.1650893>
- Miles, S., Renedo, A., & Marston, C. (2018). 'Slow co-production' for deeper patient involvement in health care. *The Journal of Health Design; Vol 3, No 1 (2018): Patients as co-designers to improve the quality of care*. <https://www.journalofhealthdesign.com/JHD/article/view?path=>
- Mongeon, P., Smith, E., Joyal, B., & Larivière, V. (2017). The rise of the middle author: Investigating collaboration and division of labor in biomedical research using partial alphabetical authorship. *PLoS One*, 12(9), e0184601. Retrieved 2017, from <http://europepmc.org/abstract/MED/28910344>. <https://doi.org/10.1371/journal.pone.0184601>
- Morgan, R., Lundine, J., Irwin, B., & Grépin, K. A. (2019). Gendered geography: An analysis of authors in The Lancet Global Health. *The Lancet Global Health*, 7(12), e1619–e1620. [https://doi.org/10.1016/S2214-109X\(19\)30342-0](https://doi.org/10.1016/S2214-109X(19)30342-0)
- National Institute for Health Research. (2018). Guidance on co-producing a research project. https://www.invo.org.uk/wp-content/uploads/2019/04/Copro_Guidance_Feb19.pdf.
- National Institute for Health Research. (2020). Promoting equality, diversity and inclusion in research. NIHR. <https://www.nihr.ac.uk/about-us/our-contribution-to-research/equality-diversity-and-inclusion.htm>.
- Okonta, P., & Rossouw, T. (2013). Prevalence of scientific misconduct among a group of researchers in Nigeria. *Developing World Bioethics*, 13(3), 149–157. <https://doi.org/10.1111/j.1471-8847.2012.00339.x>
- Reidpath, D. D., & Allotey, P. (2019). The problem of 'trickle-down science' from the Global North to the Global south. *BMJ Global Health*, 4(4), e001719. <https://doi.org/10.1136/bmjgh-2019-001719>
- Renedo, A., Komporzozos-Athanasios, A., & Marston, C. (2018). Experience as evidence: The dialogic construction of health professional knowledge through patient involvement. *Sociology*, 52(4), 778–795. <https://doi.org/10.1177/0038038516682457>
- Renedo, A., Miles, S., Chakravorty, S., Leigh, A., Warner, J. O., & Marston, C. (2020). Health Services and Delivery Research. In *Understanding the health-care experiences of people with sickle cell disorder transitioning from paediatric to adult services: This Sickle Cell Life, a longitudinal qualitative study*. NIHR Journals Library. <https://doi.org/10.3310/hsdr08440>.

- Resnik, D. B., Tyler, A. M., Black, J. R., & Kissling, G. (2016). Authorship policies of scientific journals. *Journal of Medical Ethics*, 42(3), 199–202. <https://doi.org/10.1136/medethics-2015-103171>
- Schroter, S., Montagni, I., Loder, E., Eikermann, M., Schäffner, E., & Kurth, T. (2020). Awareness, usage and perceptions of authorship guidelines: An international survey of biomedical authors. *BMJ Open*, 10(9), e036899. <https://doi.org/10.1136/bmjopen-2020-036899>
- Sen, G., Iyer, A., Chattopadhyay, S., & Khosla, R. (2020). When accountability meets power: Realizing sexual and reproductive health and rights. *International Journal for Equity in Health*, 19(1), 111. <https://doi.org/10.1186/s12939-020-01221-4>
- Sinah Theres, K. (2017). The Global South as subversive practice: Challenges and potentials of a heuristic concept. *The Global South*, 11(2), 1–17. <https://doi.org/10.2979/globalsouth.11.2.01>
- Smith, E., Hunt, M., & Master, Z. (2014). Authorship ethics in global health research partnerships between researchers from low or middle income countries and high income countries. *BMC Medical Ethics*, 15(1), 42. <https://doi.org/10.1186/1472-6939-15-42>
- Smith, R. (1997). Authorship: Time for a paradigm shift? *BMJ (Clinical Research ed.)*, 314(7086), 992–992. <https://doi.org/10.1136/bmj.314.7086.992>
- Street, J. M., Rogers, W. A., Israel, M., & Braunack-Mayer, A. J. (2010). Credit where credit is due? Regulation, research integrity and the attribution of authorship in the health sciences. *Social Science & Medicine* (1982), 70(9), 1458–1465. <https://doi.org/10.1016/j.socscimed.2010.01.013>
- Tarkang, E. E., Kweku, M., & Zotor, F. B. (2017). Publication practices and responsible authorship: A review article. *Journal of Public Health Africa*, 8(1), 723. <https://doi.org/10.4081/jphia.2017.723>
- Zachariah, R., Reid, T., Van den Bergh, R., Dahmane, A., Kosgei, R. J., Hinderaker, S. G., Tayler-Smith, K., Manzi, M., Kizito, W., Khogali, M., Kumar, A. M. V., Baruani, B., Bishinga, A., Kilale, A. M., Nqobili, M., Patten, G., Sobry, A., Cheti, E., Nakanwagi, A., ... Harries, A. D. (2013). Applying the ICMJE authorship criteria to operational research in low-income countries: The need to engage programme managers and policy makers. *Tropical Medicine & International Health*, 18(8), 1025–1028. <https://doi.org/10.1111/tmi.12133>
- Zarowsky, C. (2011). Global health research, partnership, and equity: No more business-as-usual. *Bmc international Health and Human Rights*, 11(Suppl 2), <https://doi.org/10.1186/1472-698x-11-s2-s1>.