

The Illusion of Impact: Rethinking Authorship, Collaboration, and the h-Index in Medical Research

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Abstract

Bibliometric indicators such as publication counts, citation numbers, and the Hirsch index have become central to the evaluation of academic performance in medicine. However, the growing prevalence of honorary and collaborative authorship practices raises significant concerns about the validity of these metrics. When individuals are included as authors without meeting established criteria, the meaning of authorship is diluted, accountability becomes fragmented, and the integrity of the scientific record is compromised. The COVID-19 pandemic highlighted this issue, as large multicenter studies frequently included hundreds or thousands of collaborators whose roles varied widely, yet each accrued academic credit. This editorial examines the ethical, academic, and cultural implications of inflated authorship practices. It argues that restoring the value of authorship requires stricter adherence to international standards, broader use of contributorship models such as the Contributor Roles Taxonomy, and reforms in how institutions and funding bodies evaluate scholarly performance. Ultimately, authorship must remain a marker of intellectual responsibility rather than an academic currency. Without such reforms, bibliometric measures risk becoming increasingly detached from genuine scientific contribution.

Key words: *Authorship ethics; honorary authorship; research integrity; h-index; bibliometrics*

The academic currency of modern medicine is increasingly measured in numbers: publication counts, citation metrics, and above all, the Hirsch index (h-index). These indicators, while easy to quantify, are seductive in their apparent ability to distill a career's worth of scholarship into a single figure. Promotions, grants, and reputations often hinge on them. Yet beneath the surface lies a growing distortion: the proliferation of authorship without contribution, and the inflation of academic metrics through practices that weaken both the meaning of authorship and the credibility of research itself.

The phenomenon is not marginal. It has been described for decades as "honorary authorship," "gift authorship," or more recently as the inclusion of "collaborators" en masse in large-scale projects. Surveys consistently reveal that a substantial proportion of medical publications include at least one author who does not meet accepted authorship standards. In one cross-sectional survey of high-impact biomedical journals, nearly one-fifth of articles contained honorary authors, and ghost authorship was also common [2]. These practices are not limited to obscure venues—they permeate leading journals, shaping the bibliometric landscape at the very top of the academic hierarchy.

The International Committee of Medical Journal Editors (ICMJE) attempted to close this loophole by issuing precise authorship criteria: substantial contributions to

the conception or design of the work, or the acquisition, analysis, or interpretation of data; drafting or revising the article critically; final approval of the version to be published; and agreement to be accountable for all aspects of the work. Importantly, all four conditions must be met [1]. Despite this clarity, adherence is uneven, and enforcement is weak. Journals typically accept what is declared, while institutions may have little incentive to question inflated bylines that enhance their perceived productivity.

Nowhere was the scale of this phenomenon more visible than during the COVID-19 pandemic. Large international registries and clinical consortia produced papers with thousands of named contributors. These collaborations unquestionably played a role in rapidly generating evidence, yet it is implausible that every listed name met the ICMJE's rigorous conditions. The byline, once an assurance of intellectual accountability, became a roll call of institutional participation. Each name, however, still counted toward citation databases, generating h-index growth untethered from individual scientific labor.

The implications are profound. For early-career researchers who labor intensively on study design, statistical analysis, and manuscript preparation, the impact of their work may be diluted by hundreds of nominal co-authors. For institutions, hiring and promotion committees face a distorted picture: candidates whose CVs boast dozens of high-profile publications but whose real intellectual contribution may be minimal. For the scientific community at large, the erosion of authorship integrity weakens accountability. If responsibility is distributed so thinly that no individual feels answerable, then errors, misinterpretations, or even misconduct become harder to trace.

Supporters of inclusive authorship models argue that modern science is inherently collaborative. The complexity of clinical trials, the logistics of multicenter data collection, and the sheer scale of "big data" projects necessitate vast teams. Denying authorship, they claim, risks alienating local investigators whose contributions—such as patient recruitment or database management—are essential. Some even suggest that the definition of authorship should evolve, with a more collective understanding of credit in the age of team science [3,4].

This argument, while understandable, conflicts with established authorship standards. There is nothing dishonorable in acknowledging those who facilitate a project without meeting the intellectual and accountability requirements of authorship. The problem arises

when acknowledgments are replaced by authorship, thereby diluting the meaning of the latter. If everyone who touches a project is an "author," then the term ceases to distinguish between those who conceived, analyzed, and interpreted the work and those who simply enabled it.

Recognizing this, several initiatives have emerged to clarify roles. The CRediT (Contributor Roles Taxonomy) system, now adopted by many journals, requires explicit attribution of contributions such as conceptualization, methodology, data curation, writing, and supervision [9]. By shifting from the binary of "author" versus "non-author" to a detailed mapping of responsibilities, these frameworks promise greater transparency. Studies suggest that contributorship statements reduce honorary authorship and help clarify accountability [10,12]. Still, uptake is inconsistent, and in many cases contributorship is presented alongside inflated bylines, not instead of them.

The deeper issue is structural. Academic systems that reward numbers above nuance incentivize questionable practices. A scholar with an h-index of 50 achieved through mass collaborations may appear more "productive" than one with an h-index of 20 who has led several original and methodologically rigorous projects. Committees faced with evaluating hundreds of candidates often prefer the simplicity of metrics to the complexity of qualitative judgment. Thus, the system rewards quantity, and individuals adapt their behavior accordingly [14,15].

The risks of continuing down this path are significant. Metrics become increasingly decoupled from true scholarly merit, and bibliometric inflation erodes trust in the system itself. The public, already wary of perceived conflicts of interest and reproducibility crises in science, may see inflated authorship as further evidence that academic medicine prioritizes career advancement over truth. Within the profession, cynicism grows: if authorship is easy to obtain without genuine work, then its value diminishes even for those who deserve it [5,8].

What then should be done? The solutions must operate at multiple levels. Journals must move beyond symbolic adherence to ICMJE criteria and rigorously enforce contributorship declarations. Authorship disputes should not be left to institutions alone, as conflicts of interest may prevent honest adjudication. Editorial boards could consider limiting the number of named authors on multicenter studies, with the remainder acknowledged in consortium listings, though this remains controversial.

Institutions must also recalibrate how they evaluate researchers. Metrics such as the h-index should be contextualized, not used as blunt instruments. Review committees should assess not only the number of papers but also the depth of contribution, the role in study leadership, and the originality of ideas. Granting agencies, too, should resist the temptation to equate high citation counts with excellence, recognizing that inflated bibliometrics can mask mediocrity as easily as they can signal brilliance [13].

Finally, researchers themselves must recommit to the principle that authorship is a responsibility, not a reward. By refusing to lend their names to projects in which they play no intellectual role, they affirm the value of integrity over expedience. This cultural change will be slow, but it begins with individual decisions. As long as there are willing honorary authors, the system will continue to generate them.

The tension between inclusivity and accountability will not vanish. Modern medicine does require collaboration on unprecedented scales. But collaboration does not demand authorship. By distinguishing clearly between those who are truly authors and those who are valuable contributors, the medical community can preserve both fairness and credibility.

The h-index was never meant to be an oracle of scientific worth. It is a rough heuristic, useful only when interpreted with judgment. When inflated through honorary authorship, it becomes worse than meaningless—it becomes misleading. To restore integrity to the metrics we rely on, we must restore integrity to the practices that feed them. Otherwise, we risk living in a world where academic “impact” is abundant, but genuine intellectual contribution is increasingly scarce.

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