

Investing in Women Scientists: Accelerating Progress through Inclusive Science Writing

Sheba Nakacubo Gitta^{1,2,&}, Chukwuma David Umeokonkwo¹

¹African Field Epidemiology Network, Kampala, Uganda, ²Tropical Health and Education Trust, Kampala, Uganda

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&CORRESPONDING AUTHOR

Sheba Nakacubo Gitta, African Field Epidemiology Network, Kampala, Uganda.

shebagitta@gmail.com

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Editorial

In commemorating the 2024 International Women's Day, we reflect not only on the progress made towards gender equality but also on the continuing challenges that women face in various spheres, including the world of science. This year's theme, "Invest in women: Accelerate progress," underscores the urgent need to prioritize investment in women's empowerment across all sectors, including science. Literature shows that women are underrepresented in academia [1].

Public health research and its dissemination is essential for addressing global health challenges and improving population health outcomes. Scientific journal articles are the primary mode of dissemination, enabling authors to share their works with present and future practitioners and decision-makers. When a researcher publishes their research work, they fulfil the promise they made to study participants to share findings to inform future public health action. Likewise, if they do not publish their findings, they fail to meet their ethical obligation by not providing the promised benefit to society [2].

However, women in academia, particularly in the field of public health, continue to face significant barriers when it comes to publishing their research in academic journals. Despite progress in recent years, gender disparities persist in academic publishing, with women facing greater obstacles than their male counterparts. Studies have consistently shown that women are underrepresented as authors, reviewers, and editors in academic journals, particularly in STEM fields like public health [3]. These disparities not only limit women's career advancement opportunities but also undermine the diversity and quality of research published in academic journals. This editorial highlights the challenges that women encounter in publishing public health journal articles and strategies to overcome these barriers.

Barriers Women Face in Publishing Public Health Journal Articles

Lack of Recognition and Visibility

Women researchers often face challenges in gaining recognition for their work and achieving visibility in academic circles. They may encounter biases in peer review processes, with their contributions being overlooked or undervalued compared to those of male authors [4]. A study on global health authorship highlighted the lack of author gender parity since only 39.3% of authors were women [5].

Authorship Bias

Women researchers are often less likely to be credited as lead authors or receive recognition for their contributions

to scientific publications. Studies have shown that women are underrepresented as first and last authors in academic papers, particularly in male-dominated fields like STEM (Science, Technology, Engineering, and Mathematics) [3].

Work-Life Balance

Balancing professional responsibilities with caregiving and family commitments can be particularly challenging for women in academia. The demands of publishing research articles, attending conferences, and securing funding may disproportionately affect women's ability to dedicate time to their research and writing [6].

Limited Access to Resources

Women researchers often face challenges in securing research funding, with studies showing that they receive less grant support than men. This funding disparity limits women's ability to conduct research, publish findings, and advance their careers in academia [7].

The Matilda Effect and Imposter Syndrome

Women scientists may experience the double burden of the Matilda effect and imposter syndrome. The former manifests in scientific literature through various mechanisms that systematically undervalue and underrecognize the contributions of women; their achievements may be attributed to male colleagues or overlooked altogether. This systemic bias can lead to imposter syndrome; where women question their abilities and competence and feel inadequate compared to their male peers. Consequently, women may feel pressure to prove themselves repeatedly, leading to heightened anxiety and self-doubt about their abilities. This can undermine women's confidence in submitting manuscripts for publication and advocating for their work in academic settings [8].

Gender Bias in Peer Review

Studies have shown that gender bias exists in peer review processes, with women authors facing greater scrutiny and receiving more critical feedback than men [9, 4]. This bias can discourage women from submitting their work for publication and perpetuate inequalities in academic publishing.

Literature suggests the following strategies for women to overcome barriers in publishing:

Mentorship and Networking: Providing mentorship and networking opportunities for women researchers can help build their confidence, expand their professional networks, and access valuable support and guidance from experienced colleagues [10].

Training and Skill Development: Offering training programs and workshops on academic writing, manuscript preparation, and navigating the publication process can equip women researchers with the skills and knowledge needed to publish their research effectively [11].

Addressing Bias in Peer Review: Implementing measures to address gender bias in peer review, such as blind peer review processes and diversity training for reviewers, can help ensure fair and equitable evaluation of research manuscripts and grant proposals [12].

Creating Supportive Work Environments: Establishing supportive work environments that prioritize work-life balance, provide family-friendly policies, and offer flexible scheduling options can help alleviate the challenges faced by women researchers in juggling professional and personal responsibilities [13].

Advocating for Gender Equity: Promoting gender equity in academia requires collective action from researchers, institutions, funding agencies, and journal publishers. Advocating for policies and initiatives that promote gender diversity and inclusion in academic publishing can help create a more equitable and supportive research ecosystem [14].

Efforts by AFENET and JIEPH to Engage Women in Scientific Writing

The African Field Epidemiology Network (AFENET) provides several networking opportunities for its trainees, graduates, and staff of member Field Epidemiology Training Programs (FETPs). These include scientific writing workshops and scientific conferences. These fora provide a safe space for both female and male field epidemiologists to disseminate their work.

Some FETPs have scientific writers who mentor trainees and recent graduates of these programs in scientific writing. AFENET advocates for each FETP to invest in having a scientific writer as part of its faculty. Currently, six of the ten scientific writers at AFENET are females. These female scientific writers also serve as role models, encouraging aspiring female authors to write manuscripts and stay the course when faced with challenges during their publication journey.

Journal of Interventional Epidemiology and Public Health (JIEPH) hosts quarterly webinars aimed at building capacity in scientific writing and peer reviewing for trainees, early-stage researchers, and public health practitioners. An equal number of male and female speakers have been hosted so far and on average 150 participants attend each webinar.

At JIEPH we mitigate against peer review bias by implementing a double-blind peer review process. We also conducted a peer reviewing workshop in November 2023 during the 8th AFENET Scientific Conference and some of the topics focused on addressing gender bias in publications.

Conclusion

Addressing the barriers that women face in publishing journal articles is essential for promoting gender equity in academia and advancing public health research. By recognizing and addressing systemic biases, providing support and resources, and fostering inclusive research environments, we can empower women researchers to overcome obstacles and contribute their valuable insights to the field of public health. Only by breaking down these barriers can we harness the full potential of women scientists and achieve meaningful progress in addressing global health challenges.

Competing interests

The authors declare no competing interests.

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