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# Equality and diversity in research: building an inclusive future

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## **Abstract**

Research progress and innovation are hindered by barriers, inequalities, and exclusions within academia. Embracing equality, diversity, and inclusion (EDI) is not only an ethical imperative but also essential for advancing knowledge and addressing global challenges. EDI principles ensure that researchers from all backgrounds have equitable opportunities to contribute to and benefit from research. Despite recent efforts to improve inclusivity, systemic barriers such as bias in funding, publication, and representation still persist. Strategies to address these include diverse recruitment, mentorship programmes, training to mitigate unconscious bias, and promoting data transparency. Institutional leadership plays a pivotal role in fostering an inclusive culture by setting clear goals and ensuring accountability. Promoting EDI in research enhances scientific excellence, aligns with human rights principles, and ensures equitable benefits for global populations, reflecting the richness of diverse perspectives in academic pursuits.

Research plays a key role in driving progress and innovation. However, certain barriers, inequalities and instances of exclusion have made it harder for some researchers to access opportunities in academia [1]. Embracing equality, diversity, and inclusion (EDI) is not just about ethics and fairness, it's also essential for advancing knowledge and for solving global challenges. It is notable that recently, some scientific communities and journals have stated their desire to improve the EDI for the wider scientific community. This would help foster an academic future where talents and potential are the primary drivers of success, and research achievements are shared equitably across societies.

Equality in research should ideally ensure that everyone, regardless of their background, gender, religion, ethnicity, sexuality, disability or socioeconomic status, has access to opportunities to contribute. Therefore, by fostering the EDI principles, we ensure that researchers from different backgrounds have equal opportunities to contribute to and benefit from research endeavours [2]. Meanwhile, diversity can bring varied perspectives, experiences, and ideas, which are vital for addressing complex global challenges. This can result in enhancing the quality and relevance of research outcomes [3]. Inclusion ensures that all groups or individuals with different backgrounds are culturally and socially accepted, welcomed and treated equally [2]. While diversity is simpler to monitor, increasing diversity alone does not guarantee equality or inclusion [2].

EDI gaps can exist in research opportunities, publishing, academic promotions, and speakers at conferences. While conferences should be a platform for all researchers to learn, irrespective of their backgrounds, there have been reports about disparities among speakers in medical and surgical conferences [4, 5]. Despite efforts to promote inclusivity, systemic barriers continue to hinder

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El Boghdady BMC Research Notes (2025) 18:14 Page 2 of 3

progress in research especially among under-represented groups [1]. These include bias in funding and publication opportunities, lack of role models, cultural and structural barriers, as well as the lack of support systems [6]. It has been proven that lack of representation may lead to lack of access to effective medical interventions, hinder innovation and can lead to significant financial burden in research and clinical trials [7].

The benefits of EDI in research are important to recognise. Research that incorporates diverse viewpoints is more likely to address the needs of broader populations, ensuring equitable outcomes [7]. Promoting equality in research reflects a commitment to justice and fairness, aligning with global principles of human rights. In addition, global competitiveness result from collaboration among diverse research teams to tackle international challenges.

In order to promote EDI in research, different strategies should be taken. This includes improving diverse representation within panels and speakers in event programmes, and ensure that events are accessible to everyone [8, 9]. It is also important to promote inclusive recruitment practices by actively seeking candidates from diverse backgrounds and use equitable selection criteria, and establishing mentorship programmes to support underrepresented individuals in navigating academic challenges. Training decision-makers is crucial to recognise and mitigate unconscious biases in hiring, funding, peer reviewing and taking leadership positions in academia [10, 11]. Diverse needs should be accommodated by adaptable work arrangements and support systems. Another strategy to promote EDI is by prioritising funding programmes that address diversity gaps and encourage projects led by researchers from underrepresented groups [2]. In addition, data transparency should be ensured by publishing data on diversity metrics in research to monitor and identify areas for improvement. Other approaches in publishing include, adopting a journal diversity statement with clear, actionable steps to achieve it, promoting the use of inclusive and bias-free language, appointing a journal's EDI lead, establishing a mentoring approach, monitoring adherence to EDI principles and publish EDI reports [6].

Institutional leaders play a crucial role in championing equality and diversity in research. They can drive meaningful change by setting clear goals, allocating resources, and fostering a culture of inclusion. Leadership must be accountable, with regular reporting and evaluation of diversity initiatives. EDI in research are not just ethical imperatives; they are essential for the advancement of knowledge and the progress of academic societies. By working on breaking down the barriers and fostering more inclusive practices, the research community can

unlock its full potential to benefit researchers from the whole academic world.

We believe that fostering diversity and inclusion is essential for advancing scientific excellence and ensuring that research and publishing reflect the richness of global perspectives. This Collection seeks to examine the barriers and biases that hinder inclusivity and discuss the benefits that arise from promoting diversity in research.

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#### Ethics approval and consent to participate

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