Diversity in peer review

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Advancing Sex and Gender Equity in Research: Role of peer-reviewers

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13 September 2018
Elsevier Webinar
Talk about...

1. Why **SEX** and **GENDER** matter

2. How the **SAGER** guidelines can help to address the gender bias in research

3. Role of peer-reviewers to improve sex and gender reporting
COMPLEX INTERDEPENDENCY OF SEX AND GENDER

Source: Vera Regitz-Zagrosek; Sex and gender differences in health EMBO reports 2012
Sex/Gender bias in reporting of clinical studies with antiretrovirals (1994-2011)

ARV Clinical Trial Participants

- 23.2% females
- 76.8% males

Articles (476) with SGBA

- 17% with SGBA
- 83% without SGBA


Heidari et al unpublished data
Gender blind reporting

Mouse Models

Clinical Trials

Of 56 articles published in nine prominent medical journals in 2009 reporting results from RCTs supported by US federal funding, only 25% provided analysis by sex or included sex in model.

Source: Geller et al. J Women’s health 2011
Gender blind reporting is common!

✓ Sex or gender of subjects are not reported
✓ Data are not disaggregated by sex
✓ Analysis ignores any potential sex and gender differences: Overgeneralization

Nieuwenhoven and Klinge 2010
Reasons for concern

Lack of reporting of sex and gender aspects of research can cause **harm**. It reduces **reproducibility** and **rigour**, is **costly** and a **waste** of resources. It is also missed opportunity for **innovation**.
“Women appear to be more susceptible to this risk because they eliminate zolpidem from their bodies more slowly than men. ... FDA has informed the manufacturers that the recommended dose of zolpidem for women should be lowered from 10 mg to 5 mg for immediate-release products (Ambien, Edluar, and Zolpimist) and from 12.5 mg to 6.25 mg for extended-release products (Ambien CR).”

Whiplash – Risk of injuries

![Bar chart showing the relative whiplash injury risk for females compared to males.](chart.png)

- Males (normalized to 1)

Courtesey of Dr Astrid Linder, Research Director, Traffic Safety, The Swedish National Road and Transport Research Institute - presented at SAGERIC 2013
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Gender Blind Reporting

![Graph showing percentage of overweight individuals by family income.](image)
Gender Blind Reporting

Nieuwenhoven and Klinge, Abstract Scientific Excellence in Applying Sex- and Gender-Sensitive Methods in Biomedical and Health Research Journal of Women’s Health 2010
The Gender Gaps in scientific research & scientific publishing

Sex bias in trials and treatment must end

Gender inequalities in biomedical research are undermining patient care. In the first of three related pieces, Alison M. Kim, Candace M. Tingen and Teresa K. Woodruff call on journals, funding agencies and researchers to give women parity with men, in studies and in the clinic.

Putting gender on the agenda

Biomedical research continues to use many more male subjects than females in both animal studies and human clinical trials. The unintended effect is to short-change women’s health care.

Gender-sensitive reporting in medical research

http://www.jiasociety.org/content/15/1/11

Cell sex matters

Male and female cells can behave differently — it's time that researchers, journals and funders correct for this.

Nature’s sexism

The editors of this publication need to improve how we reflect women’s contributions to science. For this, we must inject an extra loop into our thinking.
EASE Gender Policy Committee

Greater gender balance in science and publishing practices for enhanced quality, diversity and transparency for science to remain at the forefront of innovation.
Sex and Gender Equity in Research: rationale for the SAGER guidelines and recommended use

Heidari et al. Research Integrity and Peer Review (2016) 1:2
Table 1 Sex and Gender Equity in Research (SAGER) guidelines

General principles

- Authors should use the terms sex and gender carefully in order to avoid confusing both terms.

- Where the subjects of research comprise organisms capable of differentiation by sex, the research should be designed and conducted in a way that can reveal sex-related differences in the results, even if these were not initially expected.

- Where subjects can also be differentiated by gender (shaped by social and cultural circumstances), the research should be conducted similarly at this additional level of distinction.
SAGER guidelines

1. Title and abstract

✓ If only one sex/gender is included in the study, or if the results of the study are to be applied to only one sex/gender, is the title clearly stating that?
✓ Does the abstract specify the sex of animals or any cells, tissues and other material derived from these and the sex and gender of human participants?

2. Introduction

✓ Have the authors looked at possible sex and/or gender differences reported previously in the literature?

3. Methods

✓ Have sex and gender been taken into account in the design of the study?
✓ Are adequate representation of males and females (and transgender is applicable) been ensured?
✓ If not, have exclusion of one sex/gender have been justified?
### 4. Results

 ✓ Are data **disaggregated** by sex and/or gender?
 ✓ Are sex- and gender-based **analyses** reported? If not, is lack of SGBA justified?
 ✓ Are **correct terms** and indicators used in the analyses?

### 5. Discussion

 ✓ Are the implications of sex/gender on the study results and analyses discussed?
 ✓ Is there a **rationale** for lack of it?
 ✓ Are the **implications** of sex/gender analyses, or lack thereof, discussed?
AUTHORS, PEER REVIEWERS AND EDITORS

Organizations that fund and conduct research, as policymakers and regulatory agencies.

AT ALL STAGES OF RESEARCH

Study design, data collection, and analysis, reporting, real-life application

✓ Apply to all research with humans, animals or any material originating from humans and animals
✓ Apply to all disciplines whose results will be applied to humans
Recommended Actions for Editors to Implement Reporting Policies

1. Adopt the guidelines as a formal policy in Instructions to Authors.

2. Screen initial submissions to determine if sex/gender is relevant to the topic; if so, has it been addressed adequately?

3. Ensure regular training of editorial staff.

4. Invite peer reviewers to consider sex/gender in the evaluation of manuscripts.
Reviewers should ask:

1. Are sex and gender relevant to the research in question?

2. Have authors adequately addressed sex and gender dimensions or justified absence of such analysis?
Check list for authors and reviewers

Research approaches ✓

✓ Are the concepts of gender and/or sex used in your research project?

Research questions and hypotheses

✓ Does your research question(s) or hypothesis/es make reference to gender and/or sex, or relevant groups or phenomena?

Research methods

✓ Is your sample appropriate to capture gender and/or sex-based factors?

✓ Is it possible to collect data that are disaggregated by sex and/or gender?

Heidari et al. Research Integrity and Peer Review (2016) 1:2
NEW VIDEO:
SEX AND GENDER
IN PEER REVIEW

• WWW.SGREVIEW.CA
Why sex and gender matter in research

The SAGER guidelines

Standardised reporting guidelines can help to **prevent errors and omissions**, and improve **accuracy**, **transparency**, and **completeness** of research published, and **reduce waste** in research!

Absence of evidence is not evidence of absence
ENDORSE the SAGER Guidelines

http://www.ease.org.uk/about-us/gender-policy-committee/

THANK YOU
ECRs: diversity & inclusion in peer review

Sanjana Balu, Sense about Science
Diversity

noun. A range of many people or things that are very different from each other
Figure 1: Diagram of a “typical” peer review process (there are many varieties)
PEER REVIEW: THE NUTS & BOLTS

October 26 | 1:30pm to 4:
Glasgow Caledonian University
Same network of reviewers
Other factors also bring diversity.

ECRs

Age

Gender

Geographical location

Same network of reviewers
Researcher Academy

Journals

Early career researchers

Academics

Editors

Publishers
Peer review is the system used to assess the quality of scientific research before it is published. Independent researchers in the same field scrutinise research papers for validity, significance and originality to help editors assess whether research papers should be published in their journal.
What can early career researchers do?

- Talk to your PI
- Network
- Attend workshops/training
- Speak up
There is a need for more data
Monday 10th September

What: 2018 Emile Pares conference “Scientific evaluation and review”
When: 10 and September 11, 2018, University Cultural Complex, A Mixico
Who: Dr. Theodora Bloom, BHM, And Dr. Bahar Mehrani, Elsevier.
Further Details: During this session speakers will talk about trends, transparency, recognition, diversity, and inclusion in peer review

What: Panel discussion “The Importance of Diversity and Inclusion”
Director of Science at Wellcome, Organized by Wellcome in partnership
Where: Wellcome HQ, London
When: Monday 10 September 1800-2000 BST (1700-1800 UTC)
Who: Jim Smith, Lacheln Clark (The Lancet), Kebede Deribe (Universit Grick Institute)
Further details: Areas for discussion will include issues surrounding gender and country bias – both explicit and implicit, as well as more profound issues of early-career researchers in peer review and the gender including and inclusion here.

What: ORCID Peer Review Week Webinar (Americas|Europe|Middle East)
Where: https://register.eventbrite.com/rd?3777748
When: 10 September, 10:00-11:30am EDT, 3:30-4:30 BST
Who: Joris van Rossum (Digital Science) and Brigitte Shull (Cambridge) Blockchain for Peer Review Initiative; Liz Allen (PI:O); Stephanie Heston (ORCID)
Further Details: This is the first of two webinars we are hosting to learn about how ORCID is helping increase recognition for peer review, and how we can work together to make ORCID in peer review

What: "Why should you be a peer reviewer?"
When: Monday, September 10, 2018 08:30 - 9:30 AM EDT (GMT-4)
Who: Dr. Philip Linderman (MD, PhD, Columbia University, USA)
Further Details: Dr. Philip Linderman will help attendees enhance their skills and abilities of the peer review process and also explain why researchers should be peer reviewers. Full details and registration [here](#)

What: Article – Why Use the Double-Blind Peer Review Process?
Where: IGI Global, Newsroom
When: September 10, 2018
Who: IGI Global.
Further Details: Learn what IGI Global’s peer review process looks like and how an academic publisher uses the double-blinded peer review process for their newsroom to read more.


Peer Review Week

Peer Review Week 2018

What is going on during Peer Review Week?

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Monday 3rd September

What: Peer Review Week Q&A with JNeurosci and eNeuro Editors-in-Chief
Divinity and Inclusion in Peer Review
When: September 3 – 13, 2018
Who: JNeurosci and eNeuro
Further Details: The forum is open for questions from September 3 through September 13. The EICs will join the discussion during Peer Review Week on September 10-15. [https://community.sfn.org/tr/2018-peer-review-week-q-a/9178](https://community.sfn.org/tr/2018-peer-review-week-q-a/9178)

Friday 7th September

What: Report “Global State of Peer Review”
When: 7 September
Who: Publics
Further Details: One of the largest peer review reports of its time combining years’ worth of data from Clarivate Analytics, data-driven analysis from Publics’ cross-publisher peer review platform, and survey responses from ~12,000 researchers globally.

Sunday 9th September
The rise of patient peer review

By Dalmeet Singh Chawla  Dec. 10, 2014, 4:15 PM

When it comes to clinical research, the participation of the people being treated—the patients—usually ends by the time the study is submitted to a journal. A few U.K.-based publishers are now trying to change this, with a number of initiatives to involve patients in the process of peer review. The BMJ, for example, announced that in 2015, it will take the lead in involving patients in the process of peer review.

Guidance for BMJ Patient and Public Reviewers

Patient and public review at The BMJ

If you're a patient living with disease or have experienced a significant illness or medical condition, a carer of a patient, a patient advocate acting on behalf of a patient group, or you play a leading part in advocating for patient participation and partnership in healthcare we'd like to invite you to take part in a unique initiative. The BMJ has committed to improving the relevance and patient centredness of its research, education, analysis, and editorial articles by asking patients to comment on them. We need your help to make these changes.

If you already review for The BMJ as a researcher or clinician, but you are also interested in reviewing as a patient, carer, or patient advocate, you can do this too.

Patient and Public review is a new initiative for The BMJ. We are taking the lead here, and we hope other publishers will follow. We are working hard to make our processes as straightforward and smooth as possible for patient and public reviewers and welcome suggestions for how we could do this better.
Thank you.

Ask your questions on:

Researcher Academy Mendeley group

Follow us on Twitter