

ILLINOIS STATE MEDICAL SOCIETY

**Resolution 02.2019-20
(A-19)**

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Subject: Mitigating Gender Bias in Medical Research

Referred to: Medical Legal Council

1 Whereas, a study published in the Canadian Medical Association Journal has
2 shown that grant applications going through the peer review process submitted by
3 women are scored lower than those submitted by men; and
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5 Whereas, a study has shown that university professors in the basic sciences
6 identified male applicants as superior to female applicants and deserving of higher
7 compensation even though the application materials submitted were identical except for
8 the names identifying them as male or female; and
9

10 Whereas, a study looking at the relationship between gender and letter of
11 reference length and tone showed that female applicants were only half as likely as male
12 applicants to receive an “excellent” letter vs a “good” letter, and that letters of reference
13 for women applicants included substantially different adjectives, such as “diligent” and
14 “hardworking”, as opposed to “brilliant” and “trailblazer” used to describe male
15 applicants; and
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17 Whereas, the AMA has comprehensive policy on gender equity within the
18 organization and has committed to presenting a report at Annual 2019; and
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20 Whereas, the AMA has some policy relating to gender equity in regards to
21 physician compensation and advancement, but nothing specifically relating to gender
22 equity in academic or commercial medical research; therefore, be it
23

24 RESOLVED, that the ISMS advocate for the establishment of best practices that
25 remove any gender bias from the review and adjudication of grant applications and
26 submissions for publication in peer-reviewed journals, including removing names and
27 gender identity from the applications or submissions during the review process; and be
28 it further

1 RESOLVED, that the ISMS immediately forward this resolution to the AMA for
2 consideration at AMA Annual 2019.

Research:

9.5.5 Gender Discrimination in Medicine

Topic: Code of Medical Ethics

Policy Subtopic: Opinions on Professional Self-Regulation (9.5 Physician Involvement in Health Care Institutions)

Meeting Type: NA

Year Last Modified: 2017

Action: NA

Type: Code of Medical Ethics

Inequality of professional status in medicine among individuals based on gender can compromise patient care, undermine trust, and damage the working environment. Physician leaders in medical schools and medical institutions should advocate for increased leadership in medicine among individuals of underrepresented genders and equitable compensation for all physicians.

Collectively, physicians should actively advocate for and develop family-friendly policies that:

- (a) Promote fairness in the workplace, including providing for:
 - (i) retraining or other programs that facilitate re-entry by physicians who take time away from their careers to have a family;
 - (ii) on-site child care services for dependent children;
 - (iii) job security for physicians who are temporarily not in practice due to pregnancy or family obligations.
- (b) Promote fairness in academic medical settings by:
 - (i) ensuring that tenure decisions make allowance for family obligations by giving faculty members longer to achieve standards for promotion and tenure;
 - (ii) establish more reasonable guidelines regarding the quantity and timing of published material needed for promotion or tenure that emphasize quality over quantity and encourage the pursuit of careers based on individual talent rather than tenure standards that undervalue teaching ability and overvalue research;
 - (iii) fairly distribute teaching, clinical, research, administrative responsibilities, and access to tenure tracks;
 - (iv) structuring the mentoring process through a fair and visible system.
- (c) Take steps to mitigate gender bias in research and **publication**.

AMA Principles of Medical Ethics: II, VII

The Opinions in this chapter are offered as ethics guidance for physicians and are not intended to establish standards of clinical practice or rules of law.

Fraud and Misrepresentation in Science H-460.972

Topic: Research

Policy Subtopic: NA

Meeting Type: Annual

Year Last Modified: 2011

Action: Appended

Type: Health Policies

Council & Committees:

The AMA: (1) supports the promotion of structured discussions of ethics that include research, clinical practice, and basic human values within all medical school curricula and fellowship training programs; (2) supports the promotion, through AMA publications and other vehicles, of (a) a clear understanding of the scientific process, possible sources of error, and the difference between intentional and unintentional scientific misrepresentation, and (b) multidisciplinary discussions to formulate a standardized definition of scientific fraud and misrepresentation that elaborates on unacceptable behavior; (3) supports the promotion of discussions on the peer review process and the role of the physician investigator; (4) supports the development of specific standardized guidelines dealing with the disposition of primary research data, authorship responsibilities, supervision of research trainees, role of institutional standards, and potential sanctions for individuals proved guilty of scientific misconduct; (5) supports the sharing of information about scientific misconduct among institutions, funding agencies, professional societies, and biomedical research journals; and (6) will educate, at appropriate intervals, physicians and physicians-in-training about the currently defined difference between being an "author" and being a "contributor" as defined by the Uniform Requirements for Manuscripts of the International Committee of Medical Journal Editors, as well as the varied potential for industry bias between these terms.

Advancing Gender Equity in Medicine D-65.989

Topic: Civil and Human Rights

Policy Subtopic: NA

Meeting Type: Annual

Year Last Modified: 2018

Action: NA

Type: Directives

Council & Committees: NA

1. Our AMA will draft and disseminate a report detailing its positions and recommendations for **gender equity** in medicine, including clarifying principles for state and specialty societies, academic medical centers and other entities that employ physicians, to be submitted to the House for consideration at the 2019 Annual Meeting.

2. Our AMA will: (a) advocate for institutional, departmental and practice policies that promote transparency in defining the criteria for initial and subsequent physician compensation; (b) advocate for pay structures based on objective, **gender-neutral** objective criteria; (c) encourage a specified approach, sufficient to identify **gender** disparity, to oversight of compensation models, metrics, and actual total compensation for all employed physicians; and (d) advocate for training to identify and mitigate implicit bias in compensation determination for those in positions to determine salary and bonuses, with a focus on how subtle differences in the further evaluation of physicians of different genders may impede compensation and career advancement.

3. Our AMA will recommend as immediate actions to reduce **gender** bias: (a) elimination of the question of prior salary information from job applications for physician recruitment in academic and private practice; (b) create an awareness campaign to inform physicians about their rights under the Lilly Ledbetter Fair Pay Act and Equal Pay Act; (c) establish educational programs to help empower all genders to negotiate equitable compensation; (d) work with relevant stakeholders to host a workshop on the role of medical societies in advancing women in medicine, with co-development and broad dissemination of a report based on workshop findings; and (e) create guidance for medical schools and health care facilities for institutional transparency of compensation, and regular **gender-based** pay audits.

4. Our AMA will collect and analyze comprehensive demographic data and produce a study on the inclusion of women members including, but not limited to, membership, representation in the House of Delegates, reference committee makeup, and leadership positions within our AMA, including the Board of Trustees, Councils and Section governance, plenary speaker invitations, recognition awards, and grant funding, and disseminate such findings in regular reports to the House of Delegates and making recommendations to support **gender equity**.

5. Our AMA will commit to pay **equity** across the organization by asking our Board of Trustees to undertake routine assessments of salaries within and across the organization, while making the necessary adjustments to ensure equal pay for equal work.

Gender Disparities in Physician Income and Advancement D-200.981

Topic: Health Workforce

Policy Subtopic: NA

Meeting Type: Annual

Year Last Modified: 2013

Action: Reaffirmed

Type: Directives

Council & Committees: Council on Constitution and Bylaws, Council on Long Range Planning and Development

Our AMA:

- (1) encourages medical associations and other relevant organizations to study **gender** differences in income and advancement trends, by specialty, experience, work hours and other practice characteristics, and develop programs to address disparities where they exist;
- (2) supports physicians in making informed decisions on work-life balance issues through the continued development of informational resources on issues such as part-time work options, job sharing, flexible scheduling, reentry, and contract negotiations;
- (3) urges medical schools, hospitals, group practices and other physician employers to institute and monitor transparency in pay levels in order to identify and eliminate **gender** bias and promote **gender equity** throughout the profession;
- (4) will collect and publicize information on best practices in academic medicine and non academic medicine that foster **gender** parity in the profession; and
- (5) will provide training on leadership development, contract and salary negotiations and career advancement strategies, to combat **gender** disparities as a member benefit.

<https://www.nature.com/articles/d41586-018-05109-w>

A 2012 study of more than 100 biology, chemistry and physics professors at US universities found that they judged men who applied for a fictitious laboratory manager's job as being more competent and more deserving of mentorship and higher salaries than were female applicants — even though the application materials used in the experiment were identical except for the names identifying them as male or female¹. And a [2016 analysis of more than 1,200 letters of recommendation](#) submitted by applicants from 54 countries found that when male postdoctoral researchers were praised, the letters often used superlatives such as 'brilliant' and 'trailblazer', whereas positive letters describing women contained terms like 'hardworking' and 'diligent'.

See attached article. <http://www.cmaj.ca/content/190/16/E489>

Abstract

BACKGROUND: Peer review is used to determine what research is funded and published, yet little is known about its effectiveness, and it is suspected that there may be biases. We investigated the variability of peer review and factors influencing ratings of grant applications.

METHODS: We evaluated all grant applications submitted to the Canadian Institutes of Health Research between 2012 and 2014. The contribution of application, principal applicant and reviewer characteristics to overall application score was assessed after adjusting for the applicant's scientific productivity.

RESULTS: Among 11 624 applications, 66.2% of principal applicants were male and 64.1% were in a basic science domain. We found a significant nonlinear association between scientific productivity and final application score that differed by applicant gender and scientific domain, with higher scores associated with past funding success and *h*-index and lower scores associated with female applicants and those in the applied sciences. Significantly lower application scores were also associated with applicants who were older, evaluated by female reviewers only (v. male reviewers only, -0.05 points, 95% confidence interval [CI] -0.08 to -0.02) or reviewers in scientific domains different from the applicant's (-0.07 points, 95% CI -0.11 to -0.03). Significantly higher application scores were also associated with reviewer agreement in application score (0.23 points, 95% CI 0.20 to 0.26), the existence of reviewer conflicts (0.09 points, 95% CI 0.07 to 0.11), larger budget requests (0.01 points per \$100 000, 95% CI 0.007 to 0.02), and resubmissions (0.15 points, 95% CI 0.14 to 0.17). In addition, reviewers with high expertise were more likely than those with less expertise to provide higher scores to applicants with higher past success rates (0.18 points, 95% CI 0.08 to 0.28).

INTERPRETATION: There is evidence of bias in peer review of operating grants that is of sufficient magnitude to change application scores from fundable to nonfundable. This should be addressed by training and policy changes in research funding.

Fiscal Note:

N/A

Existing ISMS policy related to this issue:

N/A