Trends in Gender of Speakers at the American Academy of Dermatology Annual Meeting, 2010-2018

The proportion of women in dermatology residencies has been consistently greater than 60%; however, gender imbalance and underrepresentation of women in leadership roles persist. This study evaluates trends in the number of female speakers and associated presentation times at a dermatology national meeting.

Methods | A retrospective review of American Academy of Dermatology (AAD) Annual Meeting schedules for even years between 2010 and 2018 was performed to identify presenters and presentation times at plenary sessions, symposiums, focus sessions, and forum talks. Time was divided equally per presenter for multiple-speaker sessions. Speakers were excluded if they lacked United States medical licensure (n = 314), demographic information on a state board website (n = 10), or a clear match from a Web-based search (n = 23).

Gender, terminal degrees, medical school graduation year, and board certifications in 2017 (2010-2016 conference years) or 2018 (2018 conference year) were recorded. Practice locations were determined by searching speaker names on Google. Demographic information was obtained through the corresponding state’s medical licensing board site. This project was approved by the Partners Human Research Committee institutional review board.

The proportion of female speakers and female speaking time was calculated for each conference year. Descriptive statistics were presented for the sample of speakers at AAD Annual Meetings between 2010 and 2018. Linear mixed effect regression was used to estimate mean differences in minutes speaking and included random intercepts for the speaker to account for correlations owing to individuals presenting multiple times per conference or over time. Analyses were performed using SAS, version 9.4 (SAS Institute Inc).

Results | Across 4 conferences, 1410 unique speakers presented 4671 times, or a median of 2 times (interquartile range [IQR]: 1-4 times). Most speakers held doctor of medicine degrees (3976 [85.1%]); others held both doctor of medicine and doctor of philosophy degrees (513 [11.0%]), and some had other degrees (182 [3.9%]). Additionally, 3745 speakers presented more than 10 years after their medical school graduation (81.1%), and 803 presented within 10 years of their graduation (17.4%); 4396 speakers were board certified in dermatology (94.1%).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Overall (n = 4671)</th>
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<tbody>
<tr>
<td>Women, No. (%)</td>
<td>2232 (47.8)</td>
</tr>
<tr>
<td>Degree, No. (%)</td>
<td>MD only 3976 (85.1)</td>
</tr>
<tr>
<td></td>
<td>MD and PhD 513 (11.0)</td>
</tr>
<tr>
<td></td>
<td>Other 182 (3.9)</td>
</tr>
<tr>
<td>Graduation, No. (%)</td>
<td>Within 10 y of presentation 803 (17.4)</td>
</tr>
<tr>
<td></td>
<td>&gt;10 y prior to presentation 3745 (81.1)</td>
</tr>
<tr>
<td></td>
<td>Not applicable 69 (1.5)</td>
</tr>
<tr>
<td>Years since graduation, median (IQR)</td>
<td>20 (12-31)</td>
</tr>
<tr>
<td>Board certifications, No. (%)</td>
<td>Dermatology 4396 (94.1)</td>
</tr>
<tr>
<td></td>
<td>Other 614 (13.1)</td>
</tr>
<tr>
<td>Session type, No. (%)</td>
<td>Plenary 28 (0.6)</td>
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<tr>
<td></td>
<td>Symposium 1550 (33.2)</td>
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<tr>
<td></td>
<td>Focus session 671 (14.4)</td>
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<tr>
<td></td>
<td>Forum 2422 (51.9)</td>
</tr>
<tr>
<td></td>
<td>No. of total speakers, median (IQR) 5 (4-7)</td>
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<tr>
<td></td>
<td>Minutes per speaker, median (IQR) 24 (20-30)</td>
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Median speaker time was 24 minutes (IQR: 20-30 minutes) with a median number of 5 speakers (IQR: 4-7 speakers) per session (Table). In univariable analysis, the mean presentation time was 34.8 minutes for men and 36.0 minutes for women (mean difference, −1.24 minutes; SE, 1.21; P = .31). The difference in presentation time for men vs women was similar after adjusting for board certifications, time since graduation, and degree (mean difference, −1.49 minutes; SE, 1.26; P = .24). The percentage of female speakers and their allotted presentation time have increased consistently from 2010 (43.6% and 43.6%, respectively) to 2018 (53.8% and 57.0%, respectively) (Figure).

Downloaded From: https://jamanetwork.com/ on 07/25/2022
Assessment of Percentage of Women in the Dermatology Workforce Presenting at American Academy of Dermatology Annual Meetings, 1992-2017

Speaking at major medical society conferences is one form of leadership. Some specialties report speaker gender gaps at national meetings,1-5 an issue not explored in dermatology. We sought to compare the percentage of women presenting at American Academy of Dermatology (AAD) Annual Meetings with the percentage of board-certified female dermatologists in the United States and to determine factors associated with an increase in female speakers.

Methods | Conference programs for 6 AAD Annual Meetings in 5-year increments between 1992 and 2017 were manually reviewed. Abstracted data included meeting year; session type; and presenter, session director, and planning committee names and gender. When gender was unknown, a Google search of the physician’s name plus “dermatologist” was used to access workplace websites seeking pronoun usage for the dermatologist to assign faculty member gender. Analysis was limited to gender-assigned speakers whose degrees included MD or DO. For all session types

Figure. Comparison of Women Presenting at AAD Annual Meetings vs Board-Certified Women in the Dermatology Workforce Over Time

<table>
<thead>
<tr>
<th>Year</th>
<th>Women, %</th>
</tr>
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<tbody>
<tr>
<td>1992</td>
<td>10</td>
</tr>
<tr>
<td>1997</td>
<td>15</td>
</tr>
<tr>
<td>2002</td>
<td>20</td>
</tr>
<tr>
<td>2007</td>
<td>25</td>
</tr>
<tr>
<td>2012</td>
<td>30</td>
</tr>
</tbody>
</table>

Discussion | These data suggest that representation of female speakers at the AAD Annual Meetings has steadily increased since 2010, with the proportion of female presenters nearing the proportion of women in dermatology residencies by 2018. Gender did not predict speaking time when adjusting for graduation date and board certification. These gains distinguish dermatology from other medical specialties, such as obstetrics and gynecology at Australian conferences (71.3% vs 42%), which have not demonstrated a similar trend for female speakers.3-6

Our cohort was limited to the speakers at the AAD Annual Meetings who have practiced in the United States, and we were unable to account for faculty rank at the time of presentation, which may have an influence on differences in speaking time. As talks at national meetings and publications are leading indicators for academic promotion, we hope that these findings translate to greater representation of women at the highest levels of academic dermatology.

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Acquisition, analysis, or interpretation of data: All authors.

Drafting of the manuscript: Mujahid, Song, Li, Joyce.

Critical revision of the manuscript for important intellectual content: Mujahid, Song, Li, Mostaghimi.

Statistical analysis: Li, Joyce, Mostaghimi.

Obtained funding: Li.

Administrative, technical, or material support: Song, Mostaghimi.

Study supervision: Mostaghimi.

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excerpt focus and plenary sessions, AAD Scientific Assembly Committee (SAC) appoints session directors who secure session presenters. The percentage of active board-certified female dermatologists was determined through gender summary data from the American Board of Dermatology. Data were entered in Excel (Microsoft), and descriptive analyses were performed. Statistical analysis was performed using SAS, with P values derived from Fisher exact test. Threshold significance for 2-sided hypothesis testing was a level .05.

Results | There were 7996 speaker occurrences at these meetings, including 7861 (98.3%) occurrences of gender-assigned and 56 (0.70%) gender-unassigned dermatologist session speakers from 2240 continuing medical education sessions. There were 79 (0.99%) occurrences of speakers whose listed titles did not include MD or DO that were excluded from analysis.

Total and percentage of board-certified women in dermatology grew steadily during the study period, from 1670 (24.0%) women in 1992 to 6360 (52.5%) women in 2017 (Figure and Table). Women presenting at AAD Annual Meetings also increased, from 214 (17.9%) speakers in 1992 to 882 (48.0%) in 2017 (Figure and Table). Growth in percentage of female speakers correlated with growth in percentage of female session directors, who invited women to present at statistically significantly higher rates than male session directors in all years of study (P ≤ .001). Gender composition of the SAC also significantly increased, from 2 of 9 women (22%) at study onset to 8 of 15 women (53%) by study conclusion (Figure).

All session types except plenary sessions experienced growth in the percentage of female presenters (Table). Symposiums experienced the largest total number of women presenting (831), whereas forums had the largest total number of women presenting in a single year (323 in 2017).

Discussion | By speaking at major medical society conferences, women gain recognition, networking opportunities, and serve as role models for other women. These results show that the percentage of women presenting at AAD Annual Meetings has grown to more accurately reflect the percentage of board-certified women in the dermatology workforce. This correlates closely with the SAC inviting more women to serve as session directors. Although men and women invited higher percentages of female speakers over time, women were significantly more likely than men to invite women to speak in all years of the study. This also correlates with increasing numbers of women participating on the SAC.

Limitations of this study include potential program book errors or unaccounted speaker substitutions. We did not analyze gender besides men and women as assigned by names and pronouns. Methods did not account for dermatologists who were not board certified or who did not attend AAD meetings. Not every AAD meeting speaker is a board-certified US dermatologist. Time given to speakers was not analyzed. Other attributes of leadership or scholarship were not factored into the study design.

Over the past 26 years, more women are presenting at AAD Annual Meetings, a finding that is associated with more women directing larger education sessions. Proportional gender representation for session directors and meeting planning committees may aid closure of speaker gender gaps.

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Drafting of the manuscript: All authors.
Critical revision of the manuscript for important intellectual content: All authors. Study supervision: E. Stratman.

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2. Women need to be seen and heard at conferences. Nature. 2016;538(7625):290. doi:10.1038/538290b


Representation of Women Among Physician Authors of Perspective-Type Articles in High-Impact Dermatology Journals

In 2015, women comprised 47.1% of active dermatologists in the United States, including 47.9% of residency program directors and 55.3%, 42.4%, and 31.2% of assistant, associate, and full professors, respectively, but just 23.5% of department chairs or chiefs. In a recent study, women accounted for 43.0% of research article authors in dermatology journals, including 50.2% of first authors. However, Silver and colleagues recently found that women were underrepresented among physician authors of...
perspective-type articles published in high-impact pediatric journals despite comprising 61.9% of active pediatricians and 53.0% of full-time physician pediatric faculty. Perspective-type articles are critical and provide platforms for physicians to influence their field and contribute to their career development as authors. In the present study, we hypothesized that despite parity in first authorship of research articles, women in dermatology may be underrepresented among physician authors of perspective-type articles.

**Methods** | The primary outcome measured in this cross-sectional, descriptive study was the number of women among physician first authors of articles published in perspective-type categories in 2 of the highest-impact general dermatology journals (Journal of the American Academy of Dermatology and JAMA Dermatology) over a 5-year period (2013-2017). Article categories were identified as perspective if the journal's instructions to authors indicated that articles were independent opinions. By focusing on perspective-type categories, we hoped to (1) include articles that could be written by physicians at any stage of their careers and without expertise in any particular subfield of study, and (2) minimize bias stemming from inclusion of editorial or expert commentary-type article categories owing to previous reports of underrepresentation of women among editorial boards and senior academic faculty. Once categories were identified, individual articles were excluded only if gender of the first author could not be determined (n = 1). Coauthors were excluded if gender could not be determined (n = 2). The gender of each author was determined via Internet search of public profiles. Because this study did not involve interaction with human subjects and data were publicly available, the Partners Healthcare institutional review board determined the study did not require review.

**Results** | Two article categories, 1 from each journal, met the inclusion criteria: Journal of the American Academy of Dermatology's Commentary category and JAMA Dermatology's Viewpoint category (Table). The percentage of women among physician first authors (n = 25 of 78 [32%]) was lower than the percentage of women among active dermatologists in 2015 (47.1%). Women were more equitably represented among physician first of multiple authors (n = 23 of 63 [37%]) than among physician first and only authors (n = 2 of 15 [13%]). Women physician first of multiple authors were more likely than men to be associated with women coauthors (22 of 44 [50%] vs 29 of 74 [39%]). Similarly, women physician first authors were more likely than men to be associated with women last authors (9 of 23 [39%] vs 12 of 40 [30%]). Overall, there were lower percentages of women among authors than among women in active dermatology practice in 2015 in 90.5% (n = 19 of 21) of the groupings.

When examining trends, we found lower percentages of women among physician first authors than were in active dermatology practice in Journal of the American Academy of Dermatology's Commentary category in 2015 and in JAMA Dermatology's Viewpoint category in 2013 and 2015 (Figure). Between 2013 and 2017, the greatest representation of women among physician first authors of perspective-type articles published in 2 of the highest-impact dermatology journals occurred in 2013. Since then, women have been represented at levels as low as 14.3% (range, 14.3%-42.9%).

**Discussion** | Examinations of specific metrics (eg, submission practices and rates, acceptance rates, reviewer assignments) similar to a 6-step process suggested for medical specialty societies should be performed by journal leaders to identify potential areas for improvement toward achieving gender parity.
A Case of Pansclerotic Morphea Treated With Tocilizumab

Morphea, also known as localized scleroderma, is an inflammatory sclerosing skin disorder. There are multiple subtypes including plaque, linear, generalized, pansclerotic, and mixed. Pansclerotic morphea is extremely rare and has a severe, progressive phenotype characterized by circumferential involvement of the limbs and other body areas affecting the skin, subcutaneous tissue, muscle, and bone. It is often recalcitrant to treatment. We present a case of pansclerotic morphea responding rapidly to the anti–interleukin (IL)-6 receptor monoclonal antibody tocilizumab after progression during traditional immunosuppressive therapies.