

Letters

RESEARCH LETTER

Representation of Women Among Academic Grand Rounds Speakers

Grand rounds (GR), a time-honored method of disseminating clinical and research knowledge to medical audiences, showcases speakers as successful academic role models. Exposure to successful female role models, such as GR speakers, may positively affect the retention of women in academic medicine.^{1,2} In the present study, we sought to determine whether women's representation as GR speakers reflects their representation in academic medical workforces.

Methods | We surveyed GR speaker series in clinical specialties, each encompassing more than 2% of US academic physicians per the Association of American Medical Colleges.³ Specialties for which 15 or more National Institutes of Health-funded departments⁴ made from January 1 to December 31, 2014, GR calendars available via websites or email were analyzed. We categorized speakers by trainee status, institutional affiliation, and gender (inferred by first name and confirmed by speaker photographs in cases of ambiguity). Meetings, annual reports, and ceremonies were excluded. Female speaker percentages were compared with workforce demographics³ using 1-sample *t* tests, and intramural and extramural percentages were compared via a paired *t* test (2-sided; *P* < .05 was considered significant). The University of Pittsburgh Institutional Review Board exempted this study.

Results | Nine specialties met the inclusion criteria (Table). Emergency medicine and family medicine were the only eligible specialties without 15 or more locatable calendars. Overall, women presented 20.0% to 60.3% of the total sessions (median, 28.3%). Trainee-delivered sessions displayed comparable female and male speaker representation, comprising 2.3% to 24.1% of the total sessions.

Among sessions delivered by faculty or other nontrainees, female representation ranged from 19.6% to 53.3% (median, 26.2%). Compared with national academic medical workforces, the percentages of nontrainee female speakers were uniformly significantly lower than the female composition of the resident workforces, and lower than the female composition of the faculty workforces in all specialties except obstetrics/gynecology and surgery.

Among nontrainee speakers, extramural speakers were less likely than intramural speakers to be women (median, 22.4% vs 29.0%; *P* = .01) (Figure). When total nontrainee female speaker percentages were normalized to workforce demographic female percentages, median ratios were 0.56 for medi-

cal students, 0.61 for residents, and 0.79 for faculty (instructor through full professor).

Discussion | Women's representation among academic GR speakers falls below the percentage of female medical students (46.7%) and residents (46% overall), and often falls lower than faculty (36% overall).³ This finding suggests that audiences are not typically exposed to presenter lineups resembling their demographic gender profiles. Such trends may reflect tendencies to invite senior speakers, since academic medicine's "leaky pipeline" leaves few women among the full professor ranks. Despite longstanding female medical student enrollment near 50% and increasing numbers of women entering junior faculty positions, women still depart academic medicine more rapidly than men.³ Because women will not constitute half of the senior faculty at existing rates,³ it is unlikely that waiting for current trainees to ascend academic ladders will equalize gender representation at GR podiums.

Speaker selections convey messages of "this is what a leader looks like," and women's visibility in prestigious academic venues may subconsciously affect women's desires to pursue academic medicine. The lower a field's female visibility, the more likely women are to consider male stereotypes necessary for success.⁵ Thus, even inadvertently disproportionate showcasing of male speakers in GR may limit female trainees' identification as future academic medical practitioners and stifle female faculty's academic ambitions. With this knowledge, GR organizers may consider implementing transparent processes to highlight more female role models that are analogous to approaches championed at some conferences, such as appointing more women to speaker invitation committees.^{2,6}

Representation of women at GR podiums reflects and potentially contributes to limited female retention in academic medicine. Associations between GR representation of women and retention of women in academic medicine require further exploration; future efforts can focus on showcasing successful women role models as GR speakers.

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Table. Representation of Women Among Grand Rounds (GR) Speakers and Comparison With National Academic Medical Workforce

Specialty	No. of GR Calendars Surveyed ^a	No. of Sessions Analyzed per Annual Calendar, Mean (SD)	Sessions Presented by Presenter Category per Annual Calendar, Mean (SD), % ^b			Sessions Presented by Women per Annual Calendar, Mean (95% CI), %		Workforce Members Who Are Women, % ^c		P Value ^d
			Intramural ^c	Extramural ^d	Trainees	All Presenters	Nontrainees	Faculty	Residents	
Anesthesiology	17	37.0 (7.5)	56.0 (11.2)	31.9 (10.5)	12.5 (12.2)	28.3 (22.7-33.9)	26.2 (20.7-31.8) I: 29.0 (21.0-37.0) E: 20.3 (13.8-26.8)	34	36.7	.01
Internal medicine	45	36.5 (8.4)	60.0 (23.0)	35.2 (20.5)	4.7 (7.7)	28.5 (25.6-31.4)	27.8 (24.8-30.8) I: 29.2 (26.2-33.0) E: 25.2 (19.3-31.2)	35	43.4	<.001
Neurology	28	33.5 (8.2)	51.0 (18.7)	37.0 (18.6)	11.0 (10.7)	28.3 (24.5-32.1)	26.0 (21.9-30.1) I: 27.5 (22.6-32.4) E: 20.1 (13.9-26.3)	33	47.8	<.001
OB/GYN	18	30.3 (7.3)	50.7 (14.6)	25.6 (11.8)	24.1 (10.7)	60.3 (54.6-66.0)	53.3 (46.6-60.0) I: 53.4 (46.5-60.2) E: 54.6 (43.7-65.5)	55	82.6	.59
Pathology	18	21.8 (10.6)	50.5 (25.4)	38.2 (24.9)	11.6 (13.9)	28.1 (21.1-35.1)	25.3 (18.8-31.9) I: 24.5 (15.8-33.2) E: 18.1 (9.6-26.5)	37	54.2	.002
Pediatrics	32	37.7 (6.9)	53.2 (12.1)	44.2 (11.8)	3.6 (8.3)	38.7 (35.1-42.2)	37.1 (33.8-40.4) I: 41.0 (36.8-45.2) E: 32.9 (26.7-39.3)	52	70.6	<.001
Psychiatry	43	25.8 (9.4)	48.1 (21.9)	44.0 (20.7)	7.9 (11.0)	34.4 (31.7-37.2)	33.1 (30.0-36.2) I: 33.0 (27.4-38.6) E: 29.2 (24.5-33.9)	40	54.9	<.001
Radiology	15	14.3 (10.3)	33.5 (28.2)	64.3 (30.0)	2.3 (5.6)	20.0 (14.0-25.9)	19.6 (13.7-25.6) I: 26.1 (7.7-44.6) E: 16.3 (9.6-23.1)	30	26.8	.02
Surgery	22	26.4 (11.5)	46.6 (19.1)	40.3 (23.6)	12.9 (13.9)	24.7 (19.3-30.0)	23.0 (17.6-28.5) I: 18.6 (12.7-24.4) E: 22.4 (13.2-31.6)	18	37.9	.07

Abbreviations: E, extramural speaker affiliation; GR, grand rounds; I, intramural speaker affiliation; OB/GYN, obstetrics/gynecology.

^a The 238 surveyed calendars were drawn from 79 institutions.

^b Rows do not necessarily add to 100%.

^c Holding any faculty or staff title at a GR-sponsoring university.

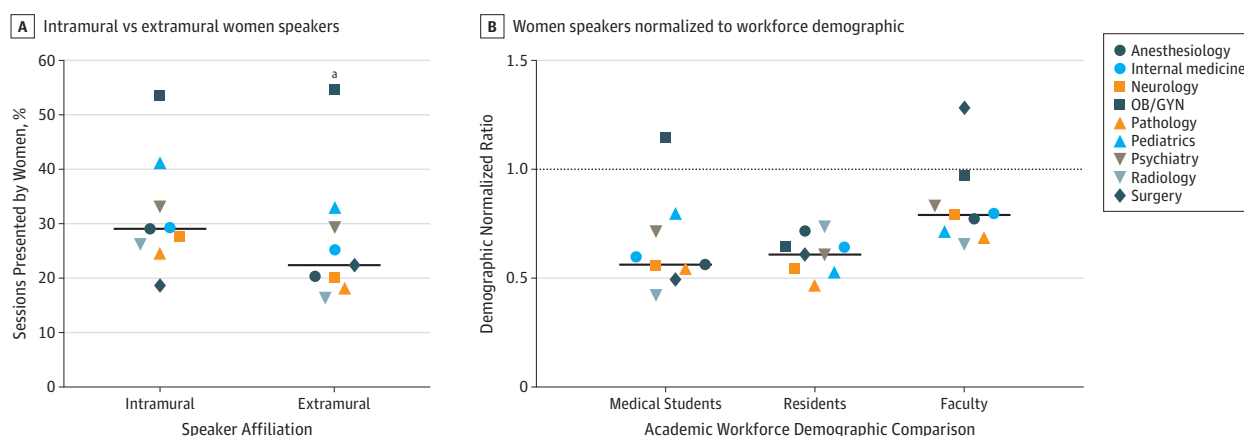
^d Holding no faculty or staff title at a GR-sponsoring university.

^e Per 2013-2014 Association of American Medical Colleges resident and MD- and equivalent degree-holding faculty gender data. Faculty data are not reported to the same significant figures as are resident data.³

^f Values for nontrainee sessions presented by women per annual calendar vs workforce members who are women.

^g Insufficient numbers of trainee-presented sessions in the specialty to determine 95% CI.

Figure. Representation of Women Among Grand Rounds (GR) Speakers by Institutional Affiliation and Workforce Demographic Gender Normalization



A, Percentages of GR sessions presented by nontrainee women by intramural (holding any faculty or staff title at a GR-sponsoring university) vs extramural (holding no faculty or staff title at a GR-sponsoring university) speaker affiliation. Median values indicated by horizontal bars. B, Percentages of GR sessions presented by nontrainee women normalized to percentages of 2013-2014 demographic who are women among enrolled medical students (46.7%) and specialties' residents and MD- and equivalent degree-holding

faculty. Median values indicated by horizontal bars. Values less than 1 indicate that the rate of female-presented GR sessions fell below representation of women in the specialties' trainee or faculty demographic. OB/GYN indicates obstetrics/gynecology.

^a $P < .01$ compared with the intramural speaker affiliation.

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