Gender disparity among the academics of rheumatology in Turkey

Sirs,

Gender disparities in academic medicine have deep historical roots and have been predominantly male-dominated, and women have faced numerous barriers in pursuing and advancing their careers. While progress has been made over the years, challenges persist. The representation of women in rheumatology is on the rise. Despite a growing number of women opting for rheumatology, their representation in academic positions within the medical field remains notably limited. This is especially evident in senior academic leadership roles, where the goal of achieving gender equity has yet to be realised (1, 2).

A recent review examined the gender gap in the authorship of rheumatology guidelines and recommendations between 2004-2019, finding that two-thirds of the first authors were males (3). Similarly, various studies have identified a gender gap in speaker representation at rheumatology conferences, including the EULAR annual congresses, and ACR meetings (4,5). In a recent study among the academic rheumatologists in the United States found that women were less likely than men to be full or associate professors, had fewer total publications, first or last publications, and NIH grants (6). In this study, they did not investigate the H-index of rheumatologists and, to our knowledge, there is no study investigating the H-index of rheumatologists.

We have conducted a bibliometric analysis to evaluate the number of publications, citations, and H-index of rheumatologists with academic titles who registered with the Turkish Rheumatology Association (TRA) by gender. Ethics committee approval was obtained with the decision numbered P202300054 from the local ethics committee. After receiving approval, rheumatologists with academic titles registered with the TRA were screened on December 20, 2023. The list of rheumatologists was recorded according to academic titles including professors, associate professors, assistant professors and gender. The number of publications, citations, and H-index of each rheumatologist were recorded from the Scopus database as bibliometric data.

Of the 183 rheumatologists participating in the study, 73 (39.9%) were female. In total, 110 (60,1%) were professors, 54 (29.5%) were associate professors, and 19 (10.4%) were assistant professors. Among the rheumatologists, fewer women were professors (23.5% *vs*. 36.6%), associate professors (11.5% *vs*. 18%), or assistant professors (4.9% *vs*. 5.5%). Although there were higher male professors, associate professors, and assistant professors, there were no significant differences statistically among titles (p=0.781). In total, there were 33 educational rheumatology departments; 13 (17.8%) female rheumatologists, and 20 (18.2%) male rheumatologists were heads of the departments (p=0.949).

In the analysis of 183 rheumatologists, the median number of publications was 51 (range: 2–393), the number of citations was 722 (range: 5–19332) and the H-index value was 14 (range: 1–71). Among the rheumatologists, the median number of publications, citations, and the mean H-index value were significantly higher among men than women (p=0,003, p=0,023, p=0,025, respectively). This difference was mostly among professors and among professors, the average number of publications, citations and H-index p-values by gender were p=0.013, p=0,037 and p=0.037, respectively. Among associate professors, only the average number of publications was statistically significant (p=0,044, p=0,092, p=0,088) and there was no statistical difference between assistant professors (p=0,780, p=0,842, p=0,780, respectively) (Table I).

The study has limitations; it is known that some professors may have unethical requests regarding having their names included in institution-based studies only as department heads and the study did not include a few rheumatologists who are not members of the TRA.

In conclusion, as well as the majority of the total number of male academics, the average number of publications, citations and H-index were also higher for men. These findings underscore the need for targeted interventions to address gender inequities and promote gender diversity within the field of rheumatology.

H. Cinakli[1], *MD*
G. Alp[2], *MD*

[1]Kirklareli Education and Research Hospital, Rheumatology Clinic, Kırklareli, Turkey;
[2]Bingöl State Hospital, Rheumatology Clinic, Bingöl, Turkey.

Please address correspondence to:
Haluk Cinakli
Rheumatology Clinic,
Kırklareli Education and Research Hospital,
39100, Kırklareli, Turkey.
E-mail: halukcinakli@gmail.com

ORCID iD
H. Cinaklı: 0000-0003-1757-0598
G. Alp: 0000-0003-1908-8439

Competing interests: none declared.

References

1. KHURSHEED T, OVSEİKO PV, HARİFİ G *et al*.: Gender equity in rheumatology leadership in the Asia-Pacific. *Rheumatol Adv Pract* 2022; 6(3): rkac087. https://doi.org/10.1093/rap/rkac087
2. EDMUNDS LD, OVSEİKO PV, SHEPPERD S *et al*.: Why do women choose or reject careers in academic medicine? A narrative review of empirical evidence. *Lancet* 2016; 388(10062): 2948-58. https://doi.org/10.1016/S0140-6736(15)01091-0
3. ADAMİ G, BENİNİ C, VANTAGGİATO E *et al*.: Gender disparity in authorship of guidelines and recommendations in rheumatology. *Ann Rheum Dis* 2020; 79(8): 1122-23. https://doi.org/10.1136/annrheumdis-2020-217119
4. HASSAN N, VAN MENS LJ, KİLTZ U *et al*. Gender equity in academic rheumatology: is there a gender gap at European rheumatology conferences?. *RMD Open* 2022; 8(1): e002131. https://doi.org/10.1136/rmdopen-2021-002131
5. MONGA K, LİEW J: Gender gap in rheumatology: speaker representation at annual conferences. *Ann Rheum Dis* 2022; 81(11): e238. https://doi.org/10.1136/annrheumdis-2020-217673
6. JORGE A, BOLSTER M, FU X *et al*. The association between physician gender and career advancement among academic rheumatologists in the United States. *Arthritis Rheumatol* 2021; 73(1): 168-72. https://doi.org/10.1002/art.41492

Table I. Scientific production of the academics.

	Female n=73			Male n=110			Total n=183		
	Number of publications	Number of citiations	H-index	Number of publications	Number of citiations	H-index	Number of publications	Number of citiations	H-index
Professors, Median (min-max)	59 (8-189)*	868 (51-7263)*	16 (4-41)*	81 (6-393)	1605 (154-19332)	21 (4-71)	75 (6-387)	1511 (51-19332)	20 (4-71)
Associate professors, Median (min-max)	25 (7-159)*	192 (15-4944)**	8 (2-40)**	36 (2-159)	338 (28-3621)	11 (2-27)	28,5 (2-159)	312,5 (15-4944)	10 (2-40)
Assistant professors, Median (min-max)	14 (4-54)**	62 (5-975)**	4 (1-15)**	13,5 (2-45)	57 (16-592)	4 (1-15)	14 (2-54)	62 (5-975)	4 (1-15)
Total, Median (min-max)	36 (4-189)*	589 (5-7263)*	12 (1-41)*	59,5 (2-393)	831 (16-19332)	15 (1-71)	51 (2-393)	722 (5-19332)	14 (1-71)

*p<0.05 between female and male academics; **p>0.05 between female and male academics.