

Leadership diversity in science: Women editors of dental journals are underrepresented compared to women editors of medical journals

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Abstract

Objectives: Increasing numbers of women are entering dentistry and medicine and it is anticipated that global leadership positions represent this demographic. In this study, the proportion of women editors of prominent medical and dental journals was compared.

Methods: A list of dental and medical journals, ranked by impact factor, were obtained through Web of Science Journal Citation Reports 2020. Chief and associate editors of these journals were identified as either a woman or a man.

Results: Ninety one dental journals had 100 editors, 15 of whom were women. There were significantly less women chief editors than men ($p < 0.0001$) compared to the percentage expected (global proportion of women and men dental scientists [IADR] membership: 43.72% women). Of ninety one comparable medical journals ranked by impact factor, there were 103 chief editors, 41 of whom were women. There was no significant difference in the number of men and women chief editors for medical journals ($p = 0.242$). There were significantly fewer women chief editors for dental journals compared to medical journals ($p < 0.0001$). There was no significant difference between the mean impact factor for journals with women and men editors for dental ($p = 0.556$) or medical ($p = 0.492$) journals. For the 91 dental journals, there were a total of 828 associate editors, of whom 638 were men and 190 were women and this difference was significant ($p < 0.0001$).

Conclusions: The results demonstrate that women in dental research have attained editor positions with less frequency than men indicating the presence of barriers to progress in scientific dental publishing.

Keywords

(MeSH)

Women

Journal impact factor

Leadership

Binomial distribution

Editorial policy

Social responsibility

1. Introduction

“If we are to capitalize on the benefits of a diverse workforce, it must start at the top” [1].

Gender trends have been reported for the editors of academic journals in various science, technology, engineering, mathematics and medicine (STEMM) fields, and it appears that women are historically underrepresented in these leadership roles [2], [3], [4], [5]. Editors of prominent academic journals are not just holding a globally visible role but also play an important part in the advancement of the field. Journal editors are responsible for directing the narrative of the journal, appointing reviewers who may be more or less partial to accepting an article for publication, and it is ultimately the editors who decide which articles are published [6], [7], [8]

The number of female dentists has increased significantly in the 21st century [9], [10] and there is a continuing trend towards increasing representation with some countries showing a higher proportion of female compared with male dentists [11]. However, it has been suggested that women are less represented in various positions of leadership in dentistry [10,12]. Examples of leadership positions in dentistry are invited conference speakers, Department Chairs, Deans, Presidents and/or Directors of professional organisations and editors of scientific journals [13], [14]. In a study focused on North American dental journals, Li et al. observed that women were underrepresented as chief editors [10].

Along with the goals of diversity, equality and social justice, comes the question of whether women scientists and editors view, and therefore, influence science and society differently than men scientists and editors. The answer appears to be “Yes”. For example, women have been shown to bring unique attributes to research and healthcare, and the advancement of women leaders in medicine often precede the advancement of women's healthcare [1,15]. When evaluating the role that women play in academic research in other STEMM fields, articles with women first authors or with at least one woman author receive more citations than gender-homogenous groups, which may indicate that gender diversity yields better quality science [16], [17]. Furthermore, an investment in gender diverse teams is associated with broader perspectives, increased innovation and prevention of failure [17], [18], [19]. In addition, having women role models in positions of leadership positively influence other women who are earlier in their careers [20], [21]. Not only do these women leaders act as role models but they may also act as mentors to young professionals. In fact, it seems that female role models and mentors had a greater impact on female college students than male role models, and it appears that women are more likely to identify females as mentors when given the opportunity [20], [21]. The visibility of women in leadership positions is important to “normalize diversity” [19]. Despite the value of women as editors, the degree to which women are represented in dentistry globally is poorly understood. Further, to date, there has been no comparison of the representation of women editors in dentistry with women editors in healthcare and/or medicine.

This primary purpose of the present study was to evaluate the proportion of women and men chief and associate editors of prominent dental journals globally and examine whether women are underrepresented as chief and associate editors relative to the best representative population from which editors would be chosen, i.e., the number of women scientists in dentistry. Following on, the proportion of women and men chief editors of prominent medical journals was evaluated and compared with the findings from dentistry.

2. Methods and materials

This study was reviewed and approved by the Ethics Committee of the University of XXXXXX. All 91 dental journals and the top 91 medical journals listed on the Web of Science ranked by impact factor using the most recent Journal Citation Report (JCR) were included in this study. The SCIE selected category for dental journals was 'DENTISTRY, ORAL SURGERY & MEDICINE' and will be referred to as “dental journals”. For the “medical journals” the SCIE categories selected included the remaining medical and allied healthcare categories excluding ‘DENTISTRY, ORAL SURGERY & MEDICINE’. A list of the dental journals and the medical journals as ranked by impact factor was imported into Excel (Microsoft, USA). Trends in Ecology and Evolution were excluded as it is not directly related to human healthcare.

Using the International Standard Serial Number (ISSN) each journal's website and the name/s of the current chief editor/s were identified. For dental journals, senior editors holding a leadership position and likely to influence decisions such as assigning articles to reviewers were also identified e.g. associate editors and deputy editors. The editors were categorized as either a woman or a man based on their name and picture as completed in previous studies [2,5,[12], [13], [14]]. When an editor's photograph was not available on the journal website, editor photographs were accessed by searching university or affiliated organization websites, Research Gate profiles, Open Research and Contributor ID (ORCID) profiles or Publons profiles. Additionally, the impact factor for each journal was obtained using the Journal Citation Reports (JCR) and journal website. In this study, “Associate editor” is the term used to describe editors other than the Chief Editor who influence the manuscript review process through determination of whether a manuscript is reviewed, reviewer selection, review adjudication and whether a manuscript is accepted or rejected.

Descriptive statistics were completed to summarize the data. The proportion of women and men chief and associate editors was compared with the proportion of women and men members of the International Association for Dental Research (IADR) using the Binomial test. The proportion of women and men chief editors for the medical journals was also compared with the proportion of women and men members of the IADR using the Binomial test. The number of women and men chief editors for the medical and dental journals was compared using the Fisher Exact test. The mean impact factor for journals with women and men chief editors was compared using the *t*-test. Statistical analyses were completed using Stata software version 15 (Stata Corporation, USA) and statistical significance was set at $p < 0.05$.

The null hypotheses were that the proportion of women and men chief and associate editors was similar to the proportion of women and men dental scientists as reported by the IADR, that the proportion of women and men chief editors for medical journals was similar to the proportion of women and men members of the IADR, that there was no difference between the number of women and men chief editors for dental and medical scientific journals, and that there was no difference between the mean impact factor for journals with women and men chief and associate editors for both medical and dental journals.

3. Results

There were 91 dental journals listed on the Web of Science JCR. Eighty-three journals had a single chief editor, 7 journals had 2 chief editors and 1 journal had 3 chief editors, resulting in

100 chief editors in total. Of the 7 journals that had 2 editors, 1 journal had both a woman and man chief editor (Table 1).

Table 1. Dental journals listed on the JCR 2020 with the number of chief and associate editor by gender.

RANK	FULL JOURNAL TITLE	CHIEF EDITORS		ASSOCIATE EDITORS	
		Men	Women	Men	Women
1	Periodontology 2000	1		3	0
2	Journal of Clinical Periodontology	1		9	0
3	Journal of Dental Research	1		5	2
4	Dental Materials	1		1	0
5	Oral Oncology	1		2	5
6	International Endodontic Journal	1		8	0
7	Journal of Periodontology	1		2	2
8	Clinical Oral Implants Research		1	4	1
9	Clinical Implant Dentistry and Related Research	2		0	0
10	Journal of Dentistry	1		3	2
11	Journal of Endodontics	1		8	2
12	International Journal of Oral Science		1	3	0
13	Journal of Periodontal Research	1		3	0
14	Molecular Oral Microbiology	1		11	1
15	Clinical Oral Investigations	2		7	1
16	JADA - Journal of The American Dental Association	1		5	4
17	Journal of Prosthodontic Research	1		22	1
18	European Journal of Oral Implantology	1		15	1
19	Oral Diseases	1		38	10
20	Journal of Oral Pathology & Medicine	1		13	0
21	Journal of Prosthetic Dentistry	1		7	2
22	Journal of Evidence-Based Dental Practice	1		2	0
23	Journal of Adhesive Dentistry	2		4	1
24	International Journal of Oral & Maxillofacial Implants	1		13	2
25	Journal of Oral Rehabilitation	1		6	3
26	European Journal of Oral Sciences		1	4	2
27	Operative Dentistry	1		3	2
28	European Journal of Orthodontics	1		3	1
29	Journal of Prosthodontics - Implant Esthetic and Reconstructive Dentistry	1		12	2
30	Caries Research		1	6	4
31	Community Dentistry and Oral Epidemiology	1		2	4
32	International Journal of Implant Dentistry	2		0	0
33	International Journal of Oral and Maxillofacial Surgery	1		13	1
34	International Dental Journal	1		3	1
35	International Journal of Paediatric Dentistry		1	1	1
36	American Journal of Orthodontics and Dentofacial Orthopedics	1		15	1
37	Archives of Oral Biology	1	1	3	1
38	Bmc Oral Health		1	5	3
39	Head & Face Medicine	1		15	3
40	Journal of Periodontal and Implant Science	1		2	1
41	Odontology	1		1	0
42	Progress in Orthodontics	1		15	2
43	Journal of Applied Oral Science		1	9	9
44	Dentomaxillofacial Radiology	1		3	0
45	Journal of Esthetic and Restorative Dentistry	1		11	0
46	Journal of Cranio-Maxillofacial Surgery	1		13	0
47	Journal of Public Health Dentistry	1		6	6

48	International Journal of Computerized Dentistry	1	0	0
49	Journal of Oral and Maxillofacial Surgery	1	8	3
50	Brazilian Oral Research	1	9	5
51	Oral Surgery Oral Medicine Oral Pathology Oral Radiology	1	4	4
52	Medicina Oral Patologia Oral Y Cirugia Bucal	1	13	4
53	Pediatric Dentistry	1	1	0
54	Acta Odontologica Scandinavica	1	2	1
55	Oral and Maxillofacial Surgery Clinics of North America	1	0	0
56	Angle Orthodontist	1	9	1
57	Dental Traumatology	1	7	0
58	International Journal of Periodontics & Restorative Dentistry	2	0	0
59	Journal of Advanced Prosthodontics	1	0	1
60	European Journal of Paediatric Dentistry	1	10	5
61	International Journal of Prosthodontics	1	10	5
62	Quintessence International	1	11	1
63	Orthodontics & Craniofacial Research	1	8	2
64	Implant Dentistry	1	4	1
65	Journal of Oral Implantology	1	12	0
66	Australian Dental Journal	1	16	2
67	Dental Materials Journal	1	11	0
68	Cleft Palate-Craniofacial Journal	1	22	20
69	Gerodontology	1	6	3
70	Korean Journal of Orthodontics	1	21	1
71	Journal of Dental Education	1	6	5
72	British Dental Journal	1	8	5
73	Journal of Orofacial Orthopedics-Fortschritte Der Kieferorthopadie	1	4	2
74	Journal of Oral & Facial Pain and Headache	1	0	0
75	International Journal of Dental Hygiene	1	0	5
76	Journal of The Canadian Dental Association	1	0	0
76	Journal of Oral Science	2	5	0
78	Cranio-The Journal of Craniomandibular & Sleep Practice	1	24	1
79	Journal of Stomatology Oral and Maxillofacial Surgery	1	9	2
80	Australian Endodontic Journal	1	0	1
81	British Journal of Oral & Maxillofacial Surgery	1	13	0
82	European Journal of Dental Education	1	1	4
83	Journal of Dental Sciences	1	11	2
84	American Journal of Dentistry	1	0	0
85	Oral Health & Preventive Dentistry	3	0	0
86	Journal of Clinical Pediatric Dentistry	1	23	13
87	Community Dental Health	1	2	1
88	Seminars in Orthodontics	1	0	0
89	Oral Radiology	1	5	6
90	Implantologie	1	3	0
91	Australasian Orthodontic Journal	1	1	0

The observed proportion of women chief editors was 15.00% (15 out of 100) and was compared with the proportion of female members of the IADR. There are a total of 8333 members of the IADR, of whom 3448 are women, 4438 are men, and 447 members who did not report their sex (personal communication: Riana Hays, IADR). Excluding the number of unreported members yielded 43.72% women members and 56.27% men members of the IADR.

The percentage of women chief editors (15.00%) was significantly lower ($p < 0.001$) compared with the expected population proportion using the IADR gender distribution values. The observed proportion of male chief editors was 85.00%, and was significantly higher than the expected population proportion using the IADR gender distribution values ($p < 0.0001$). A probability mass function and cumulative distribution function was completed to illustrate the theoretical probability of women and men achieving chief editor positions based on the IADR proportions (Fig. 1, Fig. 2).

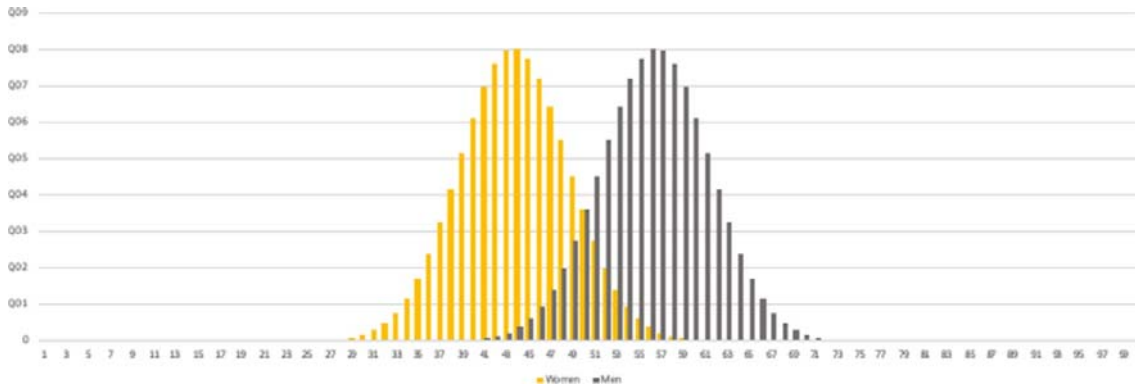


Fig. 1. A probability mass function showing the probability of a given number of women and man editors from a population of 100 chief editors of dental journals relative to the proportion of women and men who are members of the IADR.

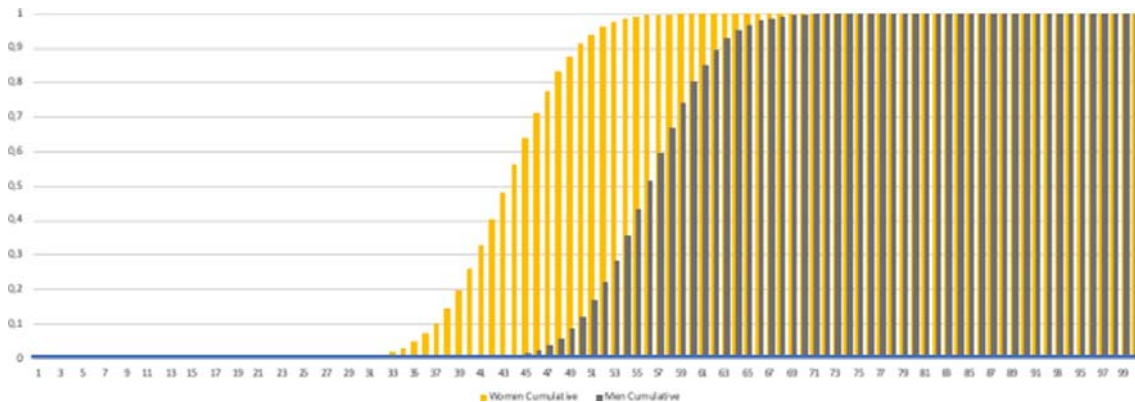


Fig. 2. A cumulative distribution function showing the probability of a given number of women and men editors from a population of 100 chief editors of dental journals relative to the proportion of women and men who are members of the IADR.

To provide comparison, the same number of medical journals, 91, listed on the Web of Science JCR was reviewed. There were 84 that had a single chief editor, 4 had 2 chief editors, 2 had 3 chief editors and 1 had 5 chief editors resulting in a total of 103 chief editors. Of the 4 journals that had 2 chief editors, 1 journal had both a woman and man chief editor. The 2 journals that had 3 chief editors had 1 woman chief editor each. The journal that had 5 chief editors had no women chief editors (Table 2). A probability mass function and cumulative distribution function was completed to illustrate the theoretical probability of women and men achieving chief editor positions in medical journals based on the IADR proportions (Fig. 3, Fig. 4).

Table 2. Medical journals listed on the JCR 2020 with the number of chief editors by gender.

RANK	FULL JOURNAL TITLE	MALE	FEMALE
1	CA - A Cancer Journal for Clinicians	1	
2	New England Journal of Medicine	1	
3	Nature Reviews Drug Discovery	1	
4	Lancet	1	
5	Nature Reviews Molecular Cell Biology		1
6	Nature Reviews Clinical Oncology		1
7	Nature Reviews Cancer		1
8	JAMA -Journal of the American Medical Association	1	
9	Nature Reviews Disease Primers	1	
10	World Psychiatry	1	
11	Nature Reviews Immunology		1
12	Cell	1	
13	Nature Medicine	1	
14	Nature Reviews Microbiology		1
15	Lancet Oncology	1	
16	Nature Reviews Neuroscience	1	
17	Nature Reviews Genetics		1
18	Journal of Clinical Oncology	1	
19	Nature Methods		1
20	BMJ -British Medical Journal		1
21	Lancet Neurology		1
22	Nature Reviews Gastroenterology & Hepatology		1
23	Cancer Discovery	2	
24	Nature Reviews Endocrinology		1
25	Nature Genetics		1
26	Nature Reviews Neurology		1
27	Cancer Cell	1	
28	Annual Review of Biochemistry	1	
29	Physiological Reviews	1	
30	Lancet Diabetes & Endocrinology		1
31	Lancet Respiratory Medicine		1
32	JAMA Oncology		1
33	Lancet Infectious Diseases	1	
34	Circulation	1	
35	European Heart Journal	1	
36	Clinical Microbiology Reviews		1
37	Immunity	1	
38	Lancet Global Health		1
39	Cell Metabolism		1
40	Annals of Internal Medicine		1
41	Cell Stem Cell		1
42	Psychological Bulletin		1
43	Nature Reviews Nephrology		1
44	Journal of the American College of Cardiology	1	
45	Journal of Hepatology	1	
46	Cell Research	1	
47	Nature Immunology	1	
48	Nature Reviews Cardiology	1	
49	Nature Neuroscience	1	
50	Nature Cell Biology		1
51	Annual Review of Immunology	1	
52	Gut	1	
53	Annual Review of Physiology	2	
54	European Urology	1	
55	JAMA Internal Medicine		1
56	Annals of Oncology	1	
57	Psychological Science in the Public Interest		1

58	Annual Review of Psychology		1
59	Blood		1
60	Intensive Care Medicine	1	
61	JAMA Psychiatry	1	
62	American Journal of Respiratory and Critical Care Medicine		1
63	Pharmacological Reviews	1	
64	Gastroenterology	2	
65	Behavioral and Brain Sciences	1	1
66	Alzheimers & Dementia	1	
67	Annual Review of Pathology-Mechanisms of Disease	2	1
68	Nature Reviews Rheumatology		1
69	Science Translational Medicine		1
70	Lancet Public Health		1
71	Lancet Psychiatry	2	1
72	Annals of the Rheumatic Diseases	1	
73	Trends in Cell Biology		1
74	Diabetes Care	1	
75	Cell Host & Microbe		1
76	Molecular Cell	1	
77	Nature Microbiology		1
78	Molecular Cancer	1	
79	Trends in Cognitive Sciences		1
80	Progress in Lipid Research	5	
81	Journal of Extracellular Vesicles	1	
82	Psychotherapy and Psychosomatics	1	
83	Progress in Retinal and Eye Research	1	
84	Lancet HIV	1	
85	Lancet Gastroenterology & Hepatology	1	
86	Hepatology	1	
87	Annual Review of Cell and Developmental Biology		1
88	Endocrine Reviews	1	
89	Journal of Pineal Research	1	
90	Circulation Research		1
91	Neuron		1

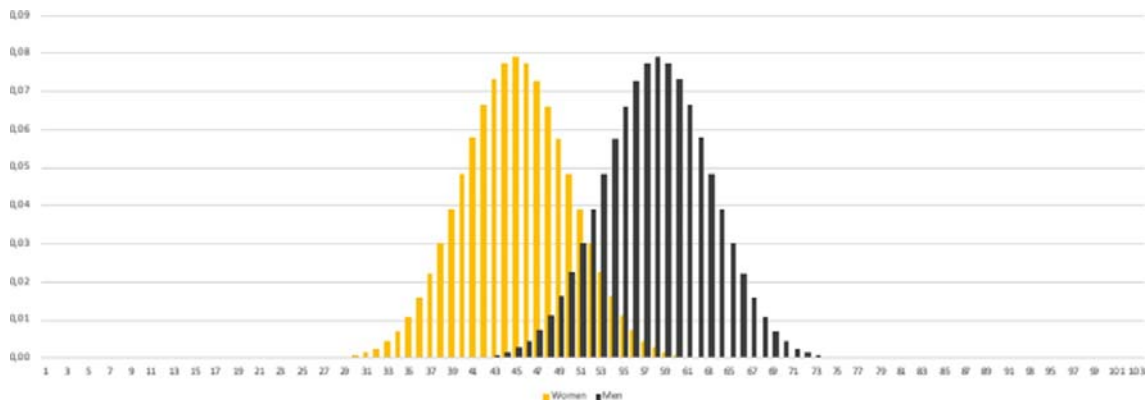


Fig. 3. A probability mass function showing the probability of a given number of women and man editors from a population of 103 chief editors of medical journals relative to the proportion of women and men who are members of the IADR.

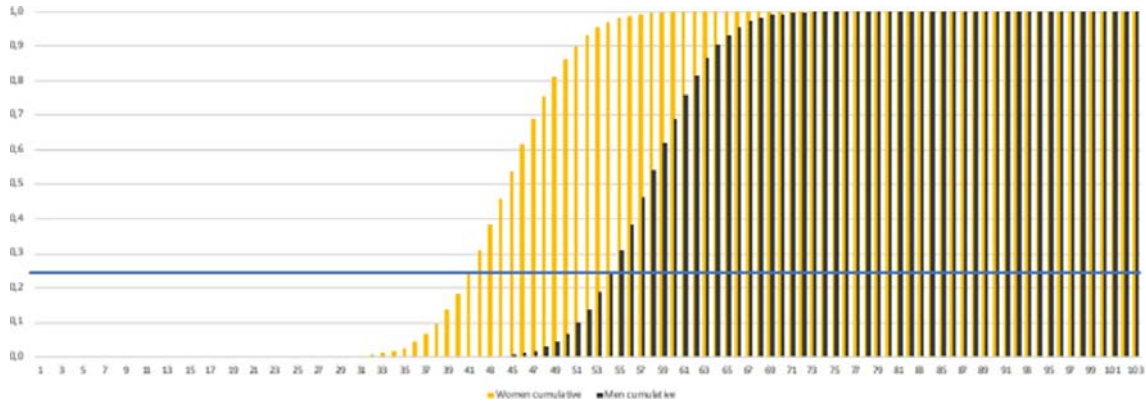


Fig. 4. A cumulative distribution function showing the probability of a given number of women and men editors from a population of 103 chief editors of dental journals relative to the proportion of women and men who are members of the IADR.

The observed proportion of women chief editors of the top 91 medical journals, by impact factor, was 40.78% (42 out of 103) and was compared with the proportion of female members of the IADR (Figs. 3 and 4). There was no significant difference between the proportion of women chief editors of the top 91 medical journals and the proportion of women in the IADR ($p = 0.309$). The observed proportion of men chief editors was 59.22%, (61 out of 103) and was not significantly different to the proportion of men members of the IADR ($p = 0.309$). The comparison of the number of women and men chief editors for the top 91 medical and dental journals revealed significantly more men chief editors and less women chief editors for the dental journals ($p < 0.001$).

There were 828 associate or similar level editors for the 91 dental journals listed on the Web of Science JCR. There were 638 men associate editors and 190 women associate editors (Table 1). There were significantly less women and more men associate editors compared with the proportion of women and men members of the IADR ($p < 0.0001$). A probability mass function was completed to illustrate the theoretical probability of women and men achieving chief editor positions based on the IADR proportions (Fig. 5).

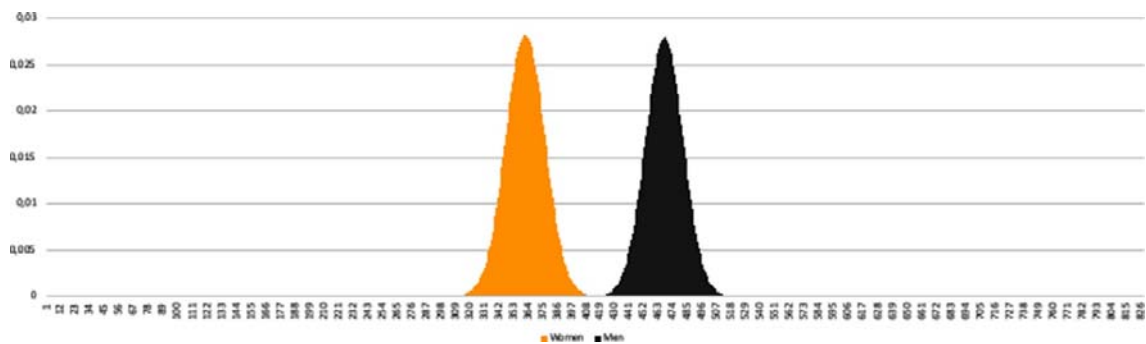


Fig. 5. A probability mass function showing the probability of a given number of women and man editors from a population of 828 associate editors of dental journals relative to the proportion of women and men who are members of the IADR.

The mean impact factor for dental journals with women editors was 1.881 (± 0.715) and 2.014 (± 1.157) for journals with men editors. There was no significant difference between the mean impact factor for dental journals with male or female editors ($p = 0.556$). The mean

impact factor for medical journals with women editors was 24.159 (± 10.445) and 27.983 (± 36.602) for journals with men editors. There was no significant difference between the mean impact factor for medical journals with male or female chief editors ($p = 0.443$).

4. Discussion

The demographics of dentistry have evolved and it is expected that dental leadership positions should be representative of this change [9], [10]. Several studies have identified an underrepresentation of women in various dental leadership positions [2,4,5,[12], [13], [14]]. This study evaluated the number of women and men editors of prominent dental and healthcare journals and compared this to the number of women and men members of the IADR and to each other.

Editors are influential gatekeepers of research publications, performing a critical role in selecting reviewers and, ultimately, manuscripts for publication. As leaders in the field, chief and associate editors define the narrative of a publication. One may ask whether the observed lack of women editors affects the narrative of dental science and the dental profession since publications does not only affect clinical decisions, they affect policies, social funding and oral healthcare programs.

Since the majority of chief and associate editors are mostly chosen from a pool of academic leaders [7], the proportion of women and men members of the IADR was used for comparison with the observed proportion of women and men chief and associate editors. According to the IADR, 43.72% of the members who have reported their sex are women and 56.27% are men. There are significantly less women and significantly more men chief editors than the expected proportion ($p < 0.0001$). Therefore, the null hypothesis that the proportion of women and men editors was similar to the proportion of women and men members of the IADR was rejected. There were also significantly less women and more men associate editors compared with the expected proportion ($p < 0.0001$) indicating that the pipeline from which chief editors are selected is a contributing factor to the dearth of chief editors of dental journals. It is also important to recognize that the majority of women editors came from North America and Western Europe. In some eastern European countries, the proportion of women dentists approaches 85% and these countries remain underrepresented in the chief editor pool.

Similar studies to evaluate gender equity at chief editorial level have been completed in various other STEMM fields [2], [3], [4], [5]. However, no study has compared the most prominent medical and dental journals. This study compared the proportion of men and women chief editors of the top 91 medical journals, as ranked on the most recent JCR. There were no significant differences in the proportion of women and men chief editors of prominent medical journals compared with the proportion of women and men members of the IADR ($p = 0.309$). The number of women and men chief editors of medical and dental journals was compared with each other and there were significantly more men and less women chief editors for prominent dental journals compared with prominent medical journals ($p < 0.0001$).

Since there are more medical than dental journals listed on Web of Science it is not known if there is gender equity for medical journals in general. Studies evaluating specialty journals appear to indicate that gender equity has not been achieved at chief editorial level [2,5]. In this study it seems that the top 91 medical journals appear to have greater gender equity at

chief editor level compared with the dental journals ranked on the Web of Science JCR. This might be related to the type or scope of journals in the top 91 positions, which may be considered more feminized specialties. However, since the dental profession has become more feminized, it is concerning that there are so few women chief and associate editors of dental journals [9], [10].

Is the impact factor of a journal associated with the probability of its chief editor being a woman or a man? Statistical analysis revealed that there is no significant difference between the mean impact factor for dental ($p = 0.556$) or medical ($p = 0.443$) journals with male and female editors, resulting in a failure to reject the null hypothesis. This finding indicates that a journal's impact factor, and thus prominence, is not a barrier to women candidates advancing to the chief or associate editor position. This is an important and positive finding in that men are neither more nor less likely to become chief or associate editors of a higher impact factor journal as they are to become editors of a lower impact factor journal. Nevertheless, this indicates that a lack of gender equality at chief editor level is pervasive.

The primary limitation of this study relates to the sample size of 91 journals that formed the sample population under investigation. This is a fixed variable as the Social Care Institute for Excellence (SCIE) ORCID index is the accepted source of journals that attain impact factors and to study this important question of scientific social justice, an alternative data source is not obviously available. A secondary limitation of this study relates to how one determines the expected woman to man editor ratio. Here, the authors believe that to use the woman to man ratio of all dentists is not as specific as the woman to man ratio of those likely to be publishing in scientific journals. Hence, the woman to man ratio of IADR members was chosen as a better representation of those who would be seeking to publish their research in the journals reviewed in this study. As there is no central research entity for other healthcare professions similar to the IADR, the IADR proportions were used for medical journals to standardize the method, which may also represent a limitation. It is also recognized that since editors are more experienced, future work may focus on the ratio woman/man editors relative to experienced IADR members, such as those over the age of 45 years of age. Given that turnover of chief editors is typically a slow process, it may be that the current underrepresentation of women as chief editors will improve as more women become more senior leaders in their field over time. Medicine appears to have reached this important threshold before dentistry. Finally, not all journals refer to “associate” editors in a similar manner e.g. deputy editors, advisory editors etc. The editors included in the associate editors’ population were those believed to have some form of leadership position that enables them to determine which studies will be sent for review or published. Journal reviewers, large editorial boards and those responsible for editing of journals were thus excluded.

The shortage of women representation in dental leadership may have deleterious and long-lasting effects, not only because their perspectives are neglected but also because these leaders act as important role models. Female leaders in various STEMM fields have routinely identified strong mentors as one of the most important aspects in their career advancement [1,20,21,22]. A lack of diverse perspectives in dental leadership is not just a problem for women, it is a problem for the entire profession. Transformation will require an inclusive process that empowers leaders rather than merely altering proportions. To be meaningful, this empowerment may require a change in policies, perceptions and the organizational culture of publishers, institutions and organizations [21], [22], [23]. The process by which chief editors and associate editors are chosen is far from transparent with many journals and it is acknowledged that for some journals, the choice of chief editor is made at an organizational

level, while for others, the choice is made by the publisher, while for others it may be decision made by both entities. A transparent process is a key first step in providing equal opportunities for dentistry to catch up with our medical colleagues who are clearly able to recognize women as equals. It is also imperative that achieving gender equality cannot fall solely on women. Efforts by men and women working together will yield the quickest impact and one that is more likely to have lasting effects if imbued at the organizational and profession level.

5. Conclusion

Women are underrepresented as chief and associate editors of prominent dental journals, irrespective of the journal's impact factor. In comparison to other medical and healthcare journals there are significantly less women and more men chief editors. Future studies are required to evaluate policies and organizational cultures that foster gender diversity so that meaningful improvements can be made.

Successfully addressing global oral healthcare requires diversity and sensitivity to diversity issues in dental leadership. It is no longer acceptable to have unequal representation in organizations, institutions, conference speakers, editorial boards and other dental leadership positions. The dental profession must commit to transforming if it is to benefit from the perspectives and scientific acumen of women leaders to meet the oral healthcare needs of a global population.

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CRedit authorship contribution statement

Karen R. Bennie: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Validation, Writing – original draft. **Sreenivas Koka:** Conceptualization, Methodology, Project administration, Resources, Writing – review & editing.

Declaration of Competing Interest

None.

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