The Modern Pediatric Departmental Chairperson: A Snapshot

Jennifer N. Tich[1], J. Bryan Carmody[1], Erika T. Rhone[1]

Corresponding author: Ms Jennifer N. Tich tichjn@evms.edu
Institution: 1. Eastern Virginia Medical School
Categories: Education Management and Leadership

Received: 08/11/2019
Published: 05/12/2019

Abstract

Background: The departmental chairperson plays a critical role in academic medical centers. However, few data exist regarding the personal and professional backgrounds of the modern pediatric chairperson.

Methods: Using public-facing websites and standard search engines, we conducted a cross-sectional review of pediatric chairpersons at medical schools ranked for research by US News and World Report in 2018. Data collected included demographics, education, previous titles, and research/professional experience.

Results: A total of 90 chairpersons were examined. The median time as chairperson was 5 years (interquartile range (IQR) 2-8; maximum 26 years), while the median time since medical school graduation was 35 years (IQR 30-39; minimum 20 years). The three most common subspecialty backgrounds were infectious disease (16.7%), neonatology (16.7%), and general pediatrics (16.7%). Most (63.3%) had held major grants from the National Institutes of Health (NIH), and 24.4% had current NIH funding. Chairpersons at institutions ranked in the top 50 by USNWR were more likely to have received NIH funding than other chairs (80.4% vs. 41.0%; p < 0.001). The most common title held prior to becoming chairperson was division chief (42.2%), while 14.4% had served as interim chair and 5.6% as chairperson elsewhere. Only 29 chairpersons (32.2%) were women, with 14 (48.3%) being hired within the past 5 years.

Conclusions: There is significant diversity among departmental chairpersons in regard to their backgrounds – but certain characteristics and professional experiences predominate. The current composition of departmental chairpersons does not reflect the gender composition of the pediatric workforce.

Keywords: leadership; academia; female

Introduction

The departmental chairperson plays a critical role in the modern academic medical center. As a figurehead, the
chair reflects the priorities and aspirations of the institution, and with day-to-day responsibilities that include recruitment and hiring of faculty and managing the department’s budget, the chair wields real power to set the course for the department.

Despite the significance of the chairperson, few data exist regarding the professional background and personal characteristics possessed by the modern departmental chair of pediatrics. However, understanding the professional backgrounds possessed by chairpersons may provide insight into the values of academic medical centers, and suggest the directions in which they might lead their departments. We therefore sought to provide a cross-sectional examination of departmental chairpersons in pediatrics and compare that to chairs in other fields (internal medicine and surgery).

**Methods**

We conducted a cross-sectional review of academic departmental chairpersons in pediatrics, internal medicine, and surgery at the 92 institutions listed as top medical schools for research in the 2018 *U.S. News & World Report* (USNWR) rankings (Morse and Martin, 2018). Institutions without currently active clinical departments and those whose department chairperson could not be readily identified were excluded.

Information collected included demographics, educational and training background, research experience and funding, and professional experience. All data was collected from public-facing websites using standard search engines from May 21, 2018 through August 6, 2018. Sources of information included departmental and institutional websites; provider bios; news releases; the National Institutes of Health funding database (NIH, 2018); Doximity; and Health Grades.

Statistical analysis was conducted using IBM SPSS version 24 (Armonk, NY). Categorical variables were compared using chi-squared tests, while continuous variables were compared using *t*-tests or the Mann-Whitney *U* test, as appropriate. A two-sided *p* < 0.05 was considered significant for all tests.

**Results/Analysis**

A total of 90 pediatric chairs were evaluated and compared to chairpersons from departments of internal medicine (n=91) and surgery (n=90). Among pediatric chairs, the median time as chair was 5 years (interquartile range (IQR) 2-8), though the longest-tenured chair had served for 26 years. The median time since medical school graduation was 35 years (IQR 30-39), with a minimum time since graduation of 20 years. Additional demographic and professional experience of the pediatric chairs is shown in Table 1.

The professional background of pediatric chairpersons was varied. The most frequent job title held prior to becoming chair was division chief (38/90; 42.2%), followed by interim chairperson (17/90, 18.9%) and a research leadership position (14/90, 15.6%). Notably, 24 chairs (26.7%) held more than one major title immediately prior to becoming chair (such as division chief and interim chair, or vice-chair and a research leadership role). Details regarding job titles held by pediatric chairpersons prior to becoming chairperson are shown in Table 3. Most (n=57; 63.3%) chairs had been the principal investigator on one or more NIH funded grants within the past 15 years. Chairs at institutions ranked top 50 by *U.S. News & World Report* were more likely to have received NIH funding than those outside this group (80.4% vs. 41.0%; *p* < 0.001), while chairs who had an MBA were less likely to have ever received NIH funding (16.7% vs. 66.7%; *p* = 0.01). Most pediatric chairs completed a specialty fellowship (n=80; 88.9%). Specific subspecialty backgrounds of pediatric chairpersons are shown in Table 2.
In most respects, chairs in pediatrics were statistically similar to those in surgery and internal medicine. However, more pediatric chairpersons were female (32.2% vs. 16.5% (internal medicine) and 15.6% (surgery); \( p = 0.009 \)). Notably, across all disciplines, almost half of all female chairpersons (48.3%) were hired within the past 5 years. Within pediatrics, female chairpersons were more likely than their male counterparts to be generalists (24.1% vs. 4.9%; \( p =0.007 \)) and to have been hired as internal candidates (68.2% vs. 40.0%; \( p = 0.03 \)).

**TABLES**

**Table 1.** Demographic and professional background of 90 pediatric departmental chairpersons.

| Factor                      | N  | %  |
|-----------------------------|----|----|
| Sex                         |    |    |
| Male                        | 61 | 67.8% |
| Female                      | 29 | 32.2% |
| Years as chair              |    |    |
| 0-1                         | 14 | 15.6% |
| 2-5                         | 32 | 35.6% |
| 6-10                        | 20 | 22.2% |
| 11-15                       | 6  | 6.7%  |
| 16+                         | 5  | 5.6%  |
| Medical School              |    |    |
| United States               | 77 | 85.6% |
| International               | 13 | 14.4% |
| Degree                      |    |    |
| MD                          | 88 | 97.8% |
| MBBS                        | 2  | 2.2%  |
| Additional Degrees          |    |    |
| None                        | 53 | 58.9% |
| PhD                         | 10 | 11.1% |
| MBA                         | 6  | 6.7%  |
| MPH                         | 7  | 7.8%  |
| Other Masters degrees       | 9  | 10.0% |
| Multiple additional degrees | 5  | 5.6%  |
| NIH Funding                 |    |    |
| Within past 15 years        | 57 | 63.3% |
| Within last 5 years         | 43 | 47.8% |
| Current                     | 22 | 24.4% |
| Working at same institution as | |     |
| Medical school              | 13 | 14.4% |
| Residency training          | 12 | 13.3% |
| Hired as internal candidate | 37 | 41.1% |
| Previous chairperson experience | 24 | 26.7% |

Abbreviations: MBBS – Bachelor of Medicine, Bachelor of Surgery; MD – medical doctor; MBA – Master of Business Administration; MPH – Master of Public Health; NIH – National Institutes of Health; PhD – Doctor of Philosophy.

**Table 2.** Specialty background of 90 pediatric departmental chairpersons. (Note: because 3 chairs had more than one specialty credential, the percentages in the table do not sum to 100%).

| Specialty                | N  | %  |
|--------------------------|----|----|

Page 1 of 3
Table 3. Professional positions held immediately prior to being chairperson.
(Note: because some chairs held multiple professional titles, percentages do not sum to 100%.)

| Immediate Previous Position                  | N   | %   |
|---------------------------------------------|-----|-----|
| Division Chief                              | 38  | 42.2|
| Interim Chairperson                         | 18  | 20.0|
| Research Leadership                         | 14  | 15.6|
| Other Roles                                 | 12  | 13.3|
| Vice- Chairperson                           | 11  | 12.2|
| Dean/Associate Dean                         | 6   | 6.7 |
| Department Chairperson                      | 6   | 6.7 |
| Residency/Fellowship Program Director       | 2   | 2.2 |

Discussion

Here, we present a snapshot of the pediatric departmental chairperson in 2018. As shown by the data here, the typical chair is experienced and highly accomplished. While there was significant diversity in background and professional experience, certain pathways seem to be more heavily travelled. For instance, the vast majority (86.7%) of chairpersons were subspecialists, and most (63.3%) were previous NIH grant winners.

Of note, only 32.2% of chairs were women. The relative paucity of female chairpersons deserves special consideration. Although women now make up just over half of medical students (Heiser, 2017), the proportion of women in leadership roles in medicine remains substantially less (Woods, Fox and Sharkey, 2018). Historically, the proportion of female chairs has been low. A survey of the Association of Medical School Pediatric Department Chairs in 1993 found just 13 female pediatric chairpersons out of 150 institutions surveyed (8.7%) – a figure that declined to 7.3% by 2003 (Stapleton, Jones and Fiser, 2005). While it is encouraging to see the proportion of female chairs increasing, the current gender composition of chairpersons still does not reflect the pediatric workforce, where roughly two-thirds of physicians are women (AAMC, 2018). While the cause of this disparity cannot be determined from a study such as ours, it is noteworthy that women in academic medicine are promoted at a slower rate than their male colleagues (Rochon, Davidoff and Levinson, 2016) Additionally, previous research
found that many women were concerned they would be unable to balance personal and clinical obligations while holding a department leadership position (Bickel et al., 2002). Mentorship from female colleagues in these roles could be valuable in overcoming this potential obstacle, thus helping to retain top talent and promote the growth of the department (Bickel et al., 2002).

**Conclusion**

In summary, a cross-sectional study of pediatric departmental chairpersons shows that there is significant diversity among current departmental chairs in academic, subspecialty, research, and professional backgrounds. However, certain characteristics and professional experiences predominate, and these traits differ slightly between departments of pediatrics, internal medicine, and surgery. Because the chairperson occupies such an important role in academic medical centers, it is important that chairs reflect the values of their departments and the composition of the physician workforce.

**Take Home Messages**

- There is significant diversity among chairpersons of pediatrics – though some experiences seem to be favored.
- There are interdepartmental differences in the professional backgrounds of chairpersons.
- Most pediatric chairpersons are subspecialists.
- Only 32% of pediatric chairpersons were women in 2018.

**Notes On Contributors**

Jennifer N. Tich is a third year medical student at EVMS interested in medical education and leadership.

J. Bryan Carmody is a pediatric nephrologist at the Children's Hospital of the King's Daughters.

Erika T. Rhone is a pediatric nephrologist and assistant professor of pediatrics at Eastern Virginia Medical School. She has particular interests in medical education and clinical skills teaching.

**Acknowledgements**

Thank you to the EVMS Summer Scholars Program for their support. Each of the tables is the work of the authors.

**Bibliography/References**

AAMC. (2018) 2018 Physician Specialty Data Report, AAMC. Available at: https://www.aamc.org/data/workforce/reports/492560/1-3-chart.html (Accessed: 1 August 2018).

Bickel, J., Wara, D., Atkinson, B. F., Cohen, L. S., *et al.* (2002) ‘Increasing women's leadership in academic medicine: report of the AAMC Project Implementation Committee’, *Academic Medicine*, 77(10), pp.1043-1061. https://doi.org/10.1097/00001888-200210000-00023
Heiser, S. (2017) More Women Than Men Enrolled in U.S. Medical Schools in 2017, AAMC. Available at: https://news.aamc.org/press-releases/article/applicant-enrollment-2017/ (Accessed: 24 August 2019).

Morse, R., Martin, E. (2018) Best Medical Schools: Research, US News. Available at: https://www.usnews.com/best-graduate-schools/top-medical-schools/research-rankings (Accessed: 1 August 2018).

NIH. (2018) NIH Research Portfolio Online Reporting Tools- RePORT, U.S. Department of Health and Human Services. Available at: https://report.nih.gov/award/index.cfm (Accessed: 1 August 2018).

Rochon, P. A., Davidoff, F. and Levinson, W. (2016) ‘Women in academic medicine leadership: has anything changed in 25 years?’, Academic Medicine 91(8), pp. 1053-1056. https://doi.org/10.1097/ACM.0000000000001281

Stapleton, F. B., Jones, D. and Fiser, D. H. (2005) ‘Leadership trends in academic pediatric departments’, Pediatrics, 116(2), pp.342-344. https://doi.org/10.1542/peds.2004-2426

Woods, L. A., Wetle, T. and Sharkey, K. M. (2018) ‘Why Aren't More Women in Academic Medicine Reaching the Top?’, Rhode Island Medical Journal, 101(4), pp.19-21.

Appendices

None.

Declarations

The author has declared that there are no conflicts of interest.

This has been published under Creative Commons "CC BY 4.0" (https://creativecommons.org/licenses/by-sa/4.0/)

Ethics Statement

IRB/Ethics exempt due to the use of publicly-available data.

External Funding

This article has not had any External Funding

MedEdPublish: rapid, post-publication, peer-reviewed articles on healthcare professions’ education. For more information please visit www.mededpublish.org or contact mededpublish@dundee.ac.uk.