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Editorial

The Challenge of Addressing the Rheumatology Workforce Shortage

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The rheumatology workforce faces a deficit of physicians trained to provide high-quality care to patients with rheumatic diseases, and this deficit is projected to worsen over the next 10 to 15 years in many countries and regions around the world. Rheumatology workforce studies carried out in the US, Canada, and in Europe have revealed expected shortages driven by projections for increased demand; changes in demographics among providers, including increasing proportions of women and part-time clinicians as well as high levels of expected retirements; and geographic maldistribution of providers.[1,2,3,4,5] In the last 2 years, practice changes caused by the coronavirus disease 2019 (COVID-19) pandemic have affected, and likely exacerbated, workforce limitations.

In this issue of *The Journal of Rheumatology*, Kulhawy-Wibe and colleagues report on the results of the Canadian Rheumatology Association's Workforce and Wellness survey.[6] The study highlights some of the known threats of burnout to the workforce as well as newer challenges related to the pandemic. Similar to findings among US rheumatologists, more than half of respondents in this study reported burnout, especially among younger (millennial) rheumatologists and among women.[7] This finding is particularly notable since both categories are increasingly proportional to the total workforce, tend to see fewer patients on average, and are crucial to the future rheumatology workforce. Drivers of burnout including work-related stress and workload, loss of control and meaning, inefficiency, and the challenges of electronic health records (EHRs) are familiar from prior studies addressing burnout among a variety of physicians.[8] The cost of burnout is high: replacing clinicians who leave or reduce their clinical effort is expensive, and there is a clear and consistent negative association between burnout and quality of care.[9,10] The COVID-19 pandemic resulted in an increase in virtual care and clinical paperwork, and an overall increase in workload and practice-related stress among respondents. These trends have the potential to accelerate workforce shortages if existing rheumatologists choose to reduce clinical workloads, retire early, or leave clinical care. To retain those rheumatologists who prefer not to work as full-time clinicians, options for flexible and adequately supported part-time clinical roles may be important. Perhaps more crucial will be systematic change to address the causes of increasing burnout. Regulatory reform and institutional decisions that reduce unnecessary administrative tasks, ensure reasonable expectations and adequate time and support for clinical tasks, improve the availability and roles of other trained care team members, and improve the usability of EHRs have been suggested as strategies to reduce burnout and improve retention.[8,11]

Rheumatology is not unique in facing a workforce shortage. Similar challenges are expected in other specialties, even in those that historically attract high proportions of applicants such as dermatology.[12] A notable exception is emergency medicine, which now projects a surplus, in contrast to the physician shortage that was predicted in 2005.[13,14] This surplus has been driven by dramatic growth in the number of residency programs, which doubled from 133 in 2005 to 265 in 2019, and an increase in the associated advanced practice provider (APP) workforce by 66%.[14] In comparison, over the last 5 years, multifaceted efforts have led to an additional 40 matched applicants per year in adult rheumatology, which now offers 272 slots, though there were no real changes in pediatric rheumatology–matched applicants.[15] The major barrier to increasing fellowship-trained adult rheumatologists is the limited number of funded training positions, so further efforts to increase the available Match slots may be useful. However, in pediatric rheumatology, the pool of interested applicants is smaller than the number of available positions. Therefore, while efforts to increase fellowship slots and exposure of learners to rheumatology earlier in training remain critical

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priorities, it is unlikely that these efforts alone will be sufficient to meet rheumatology workforce challenges.

Another important effort has been to support primary care providers (PCPs) in caring for rheumatic and musculoskeletal problems in order to decrease demand for subspecialty consultation. Some systematic changes to address provider burnout and administrative burden discussed earlier may help address similar challenges faced by PCPs, ideally allowing for more time to address problems while limiting subspecialty referrals. Support for caring for patients with rheumatic disease in primary care settings, such as e-consultations, remote shared visits, and online educational opportunities, may be more readily adapted in an environment in which providers are comfortable with the use of technologies furthered during the pandemic. However, such efforts face challenges given the many demands already placed on PCPs. Further, the effect of such interventions on demand for rheumatology is uncertain given the experience in emergency medicine, where a rapid rise of urgent care clinics has not translated into fewer emergency department visits.[14]

Given the challenges of increasing supply of fellowship-trained rheumatologists and reducing demand for subspecialty consultation, the most impactful intervention to address the rheumatology workforce shortage may be to increase the number of APPs in our specialty. Rapid growth in APP utilization has been demonstrated in the US, including within oncology, gastroenterology, and nephrology, all of which face similar workforce challenges.[16,17,18,19] Several publications have examined the effectiveness of APP care in rheumatology. Solomon et al found that patients seen in practices with nurse practitioners (NPs) or physician assistants (PAs) had lower rheumatoid arthritis disease activity compared to physician-only practices.[20] Kroese et al demonstrated that specialized nurses were equally effective to rheumatologists in diagnosing fibromyalgia.[21] Within other fields, similar efficacy has been demonstrated between APPs and physician outcomes in diabetes and cardiovascular disease.[22]

While increasing rheumatologic care provided by APPs appears promising, many questions remain. Which diseases and patient populations should APP care target? How can APPs be incorporated into existing practices such that burnout is limited for both APPs and physicians? How should APPs be trained when they enter the field? Existing data suggest that the vast majority of rheumatology APPs currently see patients independently, although it should be noted that NPs can currently practice independently in 21 states, whereas all PAs currently require physician supervision.[23] Further reform in APP scope of practice may be important for meeting workforce demands. Care will need to be taken to enable APPs to practice at the top of their license while taking into account the new demands this will place on rheumatology physicians, who would be seeing a larger share of complex patients. Reimbursement and time allotted to each visit may need to be adjusted accordingly to limit physician burnout. Consideration should be given to formal curricula or training programs to help APPs achieve both competence and confidence in treating rheumatologic conditions.[24] The curriculum outline developed by the American College of Rheumatology specifically for APPs can serve as a blueprint for these efforts.[25] Similarly, fellowship training should include a focus on interprofessional education, including working effectively with APPs. Finally, incorporating APPs more effectively into rheumatology professional societies and supporting practices in hiring and training APPs will all be important steps in addressing the rheumatology workforce shortage.

The rheumatology workforce faces multiple challenges in meeting demand for rheumatologic care. Addressing physician retention and recruitment, burnout, and supporting the primary care workforce will require different multimodal approaches. However, concern remains that these efforts will not be sufficient to close the supply-demand gap. Examination of other specialties suggests that expanding the APP workforce will be critical in meeting this challenge. Careful consideration, planning, education, and regulatory support will be required to successfully integrate a larger APP workforce into rheumatology.

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