Addressing Needs of Women Radiologists: Opportunities for Practice Leaders to Facilitate Change

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Introduction

Women are, and have always been, underrepresented in radiology (1). This gender disparity must be addressed. Radiology leaders committed to increasing gender diversity and fostering an inclusive workplace have the opportunity to strengthen their organizations. Developing a radiology culture supportive of the needs of women and conducive to physician well-being will broaden radiology’s horizons by improving workplace innovation, growth, and collaboration (2).

Although women and men may have similar ambitions, aim to achieve similar goals, and work on similar tasks, they experience the workplace differently. Men receive more promotions and more challenging assignments and have more opportunities for networking and mentorship (3,4). In the corporate world, men and women are nearly equal in number in entry-level positions, yet women are 18% less likely to be promoted to management levels (3). Only one in five “C suite” leaders (eg, Chief Executive Officer, Chief Operating Officer, Chief Financial Officer) is a woman (3). In academic medicine, women are less likely than men to achieve the rank of full professor and are less likely to remain in academia (4).
A concerning trend of diminishing numbers of women in senior leadership positions in radiology is also seen (Figure) (1,5–7). Graduating medical school classes have nearly equal percentages of men and women (5). However, only approximately one-quarter of radiology residency applicants are women (6). Although recent trends are suggestive of an increase in the number of women in leadership positions, only 13% of radiology leaders (defined as a managing partner, chair, vice chair, or executive committee member) are women (1,8). The dearth of women in leadership positions in radiology may result in a lack of appropriate role models for medical students, residents, fellows, and faculty members early in their careers. This limited availability of women role models, the lack of mentorship, and the limited exposure to radiology early in medical school may deter women from pursuing radiology (9).

Whether recently out of training or further along the career path, in private practice or academics, radiologists of both genders face increasing challenges in today’s workplace. These challenges include delivering the best patient care in the setting of increasing volumes, responding to demands for faster report turnaround time, spending more face time with patients or referring providers (as promulgated in the American College of Radiology [ACR] Imaging 3.0 initiative), and meeting many other practice metrics (10). On top of these increasing challenges, women in radiology also face the potential for gender bias and discrimination. In radiology, bias may begin as early as the residency recruitment process. This bias, both conscious and unconscious, can also manifest in disparities in faculty promotions or private practice partnership invitations and in salary inequity. Women also may have unique workplace needs that their male counterparts do not have—for example, in relation to pregnancy, postpartum recovery, and lactation.

Cultivating a workplace that recognizes and is responsive to the needs of the individual and that encourages work-life integration will engage all radiologists within that organization. Investigators have found that for people to feel fully engaged and satisfied with their employment, they need (a) a meaningful vision of the future, (b) a sense of purpose, and (c) great relationships (11,12). The effort to build an inclusive and understanding organization pays off. Engaged and satisfied employees tend to work “harder and smarter” and boost overall success (11).

Radiology leaders should advance efforts to improve gender diversity and invest in women to improve practice outcomes and the future of radiology. In this article, we outline the key steps that leaders can take to address the needs of all women in radiology: (a) marketing radiology to talented women medical students, (b) addressing recruitment and bias, (c) understanding and accommodating the provisions of the Family and Medical Leave Act of 1993 (FMLA) and the Fair Labor Standards Act (FLSA) for both trainees and radiologists in practice, (d) preventing burnout and promoting well-being, (e) offering flexible work opportunities, (f) providing mentorship and career advancement opportunities, and (g) ensuring equity (Table 1).

Marketing Radiology to Talented Women Medical Students

The percentage of women among U.S. medical school graduates has remained relatively stable from 2013 to 2017; on average, 47.5% of graduating medical students each year are women (5). However, the number of women applying to diagnostic radiology residency programs during that same period remained disproportionately low, with an average of 29% women applicants (Table 2) (6).

In the results of one of several studies exploring this gender inequality among applicants to diagnostic radiology residencies, investigators found a greater concentration of women residents in programs with a woman residency program director (13). This statistic suggests that women radiologists holding visible leadership roles are...
Addressing Recruitment and Bias

Medical students’ initial perception of radiology programs affects their decisions about the programs to which they apply. This initial perception of residency programs and how the programs portray themselves on their websites are important factors. Programs should use departmental websites as an opportunity to emphasize the value they place on diversity, through both words and images. Programs should leverage their resources to attract the most diverse pool of applicants possible.

Before selecting applicants for interview invitations, selection committees should precommit to recruitment goals. Programs should create a shared vision of the ideal candidate, grade applications on the same scale, and blind the applicant’s identity on applications as much as possible, especially with respect to names and photographs. Program directors can use the data filter in the Electronic Residency Application Service.
Table 1: Policies, Programs, and Practices to Support Women in Radiology

<table>
<thead>
<tr>
<th>Policies, Programs, and Practices</th>
<th>Action Items</th>
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<tr>
<td>Culture that supports gender equality</td>
<td>Demonstrate commitment to inclusiveness and equality. Communicate regularly to set the tone for a lack of tolerance of discrimination and harassment.</td>
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<tr>
<td>Marketing and recruitment</td>
<td>Establish a web presence emphasizing initiatives to attract, develop, and advance the most talented radiologists, to include women and other under-represented minorities. Introduce exposure to radiology early in medical school. Improve the visibility of women in radiology to women medical students. Offer mentorship opportunities to women medical students. Advertise positions with gender-neutral words for job descriptions. Create diverse interview and selection committees for job openings.</td>
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<td>Bias training</td>
<td>Institute regular unconscious (implicit) bias training and refreshers. Supplement didactics with interactive activities and small-group sessions to combat bias. Implement bias-reducing strategies for recruitment, interviewing, and hiring processes.</td>
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<td>FMLA</td>
<td>Have accessible, written parental leave policies consistent with federal law. Increase the flexibility of training schedules, accommodating trainees’ medical and parental leave.</td>
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<td>FLSA</td>
<td>Support the creation of departmental and/or institutional lactation room(s). Ensure that appropriate time is available to meet lactation needs.</td>
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<td>Flexible work opportunities</td>
<td>Create a mechanism to address staffing shortages related to FMLA absences; maintain high service levels and long-term job security for the team. Offer alternative hours or compressed-schedule work hours. Offer part-time or job-sharing opportunities. Consider remote work options when feasible.</td>
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<td>Team building and well-being</td>
<td>Designate a “wellness” champion within the organization. Create opportunities for physicians and their families to socialize outside work. Ensure that all have an opportunity to engage in planned social activities.</td>
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<td>Zero tolerance of harassment</td>
<td>Institute antiharassment training. Offer an opportunity for open discussion of issues related to discrimination and harassment.</td>
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<td>Mentoring</td>
<td>Implement “mentor-down” programs. Implement a “mentor-up” initiative to help leaders engage in dialogue and increase awareness of junior women’s work-related issues. Facilitate networking and sponsorship, and support coaching. Organize women’s interest and support groups.</td>
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<td>Career advancement and promotions</td>
<td>Set clear expectations of performance. Apply consistent criteria to evaluate candidates for promotion and tenure. Implement a career advisory group and a promotion readiness committee. Offer growth opportunities with high-visibility, high-impact projects. Offer professional enrichment training opportunities. Tailor career progression on the basis of individual needs and goals. Create a reward system with rules known to all. Regularly acknowledge and celebrate achievements (“success stories”).</td>
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<tr>
<td>Transparency and equity</td>
<td>Institute programs and policies designed to ensure fair distribution of promotions and salary equity. Create opportunities for all to have input in decision making. Establish channels for receiving feedback. Use a well-planned, fair, and transparent system to create work assignments and monitor productivity.</td>
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<tr>
<td>Accountability</td>
<td>Hold practice leadership accountable for gender diversity and inclusion. Track data on gender representation in recruitment, promotion and tenure, and/or partnership. Set targets for gender representation at all career levels. Share gender diversity metrics with team members, and report to organizational leadership.</td>
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(ERAS), which is found under the “setup” tab, to filter the information that is visible (including applicant photographs) during the application evaluation process.

The selection committee should be diverse in composition and should include members of different races, ethnicities, genders, ages, and ranks. If possible, committees should consider including individuals with nontraditional career paths and those who have varied interests outside medicine. Interviews should be conducted in a structured or semistructured manner and should include performance-based questions with a consistent rating scale. Programs should continually collect and review data on diversity recruitment and retention.

Two types of bias, conscious and unconscious, have the potential to affect prospective trainees throughout the recruitment process. Conscious bias is overt and more readily recognized and is more swiftly handled with standard workplace policies. Unconscious bias, or implicit bias, is covert and inherent in all people. This unconscious bias is much more challenging to uncover, understand, and address in the workplace. To minimize bias, the program director should set clear requirements and create a safe environment for responding to instances of possible unconscious bias.

Unconscious bias training should be a prerequisite for all those who are involved in the recruitment and interview process. Awareness of unconscious bias is a necessary first step toward change. The Association of American Medical Colleges (AAMC) has developed short videos for academic medical professionals, including “What You Don’t Know: The Science of Unconscious Bias and What to Do about It in the Search and Recruitment Process,” which may be of benefit for reviewers of applications and in-person interviewers (21). Some helpful training tools for programs include the implicit association test and AAMC training videos (22,23).

Consistent bias and unconscious bias exert profound influences on employment, job satisfaction, and retention of radiologists in all radiology departments, whether in academic settings or private practice (24). Awareness of the pervasive existence of both kinds of bias, particularly unconscious bias, is an essential first step in dealing with the potentially substantial and long-lasting adverse effects on our workforce. One can adopt various strategies to overcome, or at least mitigate, bias during recruitment; these same strategies can be applied to ensure job satisfaction and improve retention. Cognizant of the considerable effects that bias can have, many institutions now provide training to employees, particularly those involved in recruitment, and take actions to handle noncompliance.

Skepticism is growing about whether assigned mandatory training and refresher courses are effective tools to combat bias, meet workplace diversity goals, and teach cultural competence in health care (25). By demonstrating commitment to inclusiveness and equality, and by embracing a thoughtful approach to unconscious bias training, leadership has an opportunity to shape the workplace culture and prime their team members to become receptive to the discovery of their biases. Practices and training programs might try incorporating interactive activities such as role-playing and small group discussions, instead of lectures, to make learning about bias experiential rather than didactic (26). One approach is to ask thought-provoking questions and guide the group through candid and difficult conversations. Another is to encourage individuals to share stories and ask questions of each other about topics that they might otherwise be too afraid to discuss openly. The workplace needs to be supportive in its initiatives to deal with unconscious bias. Individuals should feel comfortable enough to bring learning experiences to a personal level, rather than feeling vulnerable. It is not enough

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Women Applicants</th>
<th>Total No. of Applicants</th>
<th>Women Applicants (% of Total)</th>
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<tbody>
<tr>
<td>2013</td>
<td>826</td>
<td>2780</td>
<td>29.7</td>
</tr>
<tr>
<td>2014</td>
<td>758</td>
<td>2632</td>
<td>28.8</td>
</tr>
<tr>
<td>2015</td>
<td>822</td>
<td>2668</td>
<td>30.8</td>
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<tr>
<td>2016</td>
<td>719</td>
<td>2643</td>
<td>27.2</td>
</tr>
<tr>
<td>2017</td>
<td>693</td>
<td>2422</td>
<td>28.6</td>
</tr>
<tr>
<td>Average</td>
<td>764</td>
<td>2629</td>
<td>29.0</td>
</tr>
</tbody>
</table>

Source.—Reference 6.
Understanding the FMLA and FLSA

Understanding FMLA

Gender-specific needs during pregnancy, postpartum recovery, and lactation add to the challenges that today’s women in radiology face. To address these needs, department chairs and practice leaders should be aware of two federal laws: (a) the FMLA and (b) the 2010 amendment to section 7 of the FLSA regarding expression of breast milk. When implemented, these family-supportive policies help women radiologists to thrive professionally and personally. In practice, these policies can improve the well-being of radiologists of all genders, with or without children. As noted in the literature, “both genders of radiologists needed absences from work for FMLA-sanctioned reasons” (27), and everyone desires “healthy colleagues with minimal absenteeism” (28).

FMLA defines eligible employees as those who have worked for their employer at least 1250 hours during the past 12 months at a location where the company employs 50 or more employees within 50 miles. FMLA provides such eligible employees with up to 12 weeks of unpaid, job-protected leave per year for the birth and care of a newborn or adopted child; to care for an immediate family member (spouse, child, or parent) with a serious health condition; or to take personal medical leave because of a serious health condition (29). As articulated by the U.S. Department of Labor, the purpose of FMLA is “to help employees balance their work and family responsibilities by allowing them to take reasonable unpaid leave for certain family and medical reasons. It also seeks to accommodate the legitimate interests of employers and promote equal employment opportunity for men and women” (29).

At a minimum, radiology practices should have accessible written parental leave policies consistent with federal law. Top practices that strive to create a supportive workplace have an opportunity to improve upon FMLA for the individual employee by providing partial or full pay during FMLA leave. Precedent has been set; according to the 2016 ACR Commission on Human Resources Workforce Survey, 69% of FMLA leave in responding radiology practices was paid to some extent (27).

In academia, residents and fellows who have worked for 12 months (and 1250 hours) are legally eligible for FMLA leave (30,31). Academic practice leadership should be aware that trainees are eligible for FMLA leave and should offer 12 weeks of parental leave. Anecdotally, ahead-of-the curve programs are granting 12 weeks of parental leave for radiology residents.

Understanding FLSA

Section 7 of the FLSA states that eligible employees (defined as those with 50 or more employees) must provide “reasonable break time for an employee to express breast milk for her nursing child for 1 year after the child’s birth” and a place to do so, “other than a bathroom, that is shielded from view and free from intrusion from coworkers and the public” (32). This FLSA requirement applies to trainees who have worked for 12 months (and 1250 hours) (30,31).

Despite this federal law, a vast majority of radiology practices in the United States do not have dedicated lactation facilities. Specifically, in the 2016 ACR Commission on Human Resources Workforce Survey, only 13% of radiology practices reported having such facilities (28). Practices should ensure that all locations have designated and publicized places for expression of breast milk. Further, practices should strive to pursue the necessary actions to create dedicated lactation facilities (33). Radiology practices must also recognize that expression of breast milk requires not only space but also time. Leadership and colleagues alike should be supportive of women, both in practice and in training, who need to schedule or arrange breaks from clinical service as necessary to meet their lactation needs.

Handling FMLA and FLSA for Trainees: Meeting the Needs of Pregnant Trainees

The institutional requirements of the Accreditation Council for Graduate Medical Education (ACGME) require all accredited residency programs to provide a written policy on vacation and leaves of absence (34). These policies must comply with FMLA as well as with prevailing state laws. The policy should include information on the potential effect that an extended leave of absence may have on fulfilling criteria for satisfactory completion of the program and eligibility to participate in examinations by certifying boards. These policies should be specific to the residency program because department faculty policies are often not relevant to trainees. Written policies eliminate inconsistencies, provide transparency.
and clarity, alleviate anxiety, and avoid resentment and discord within a residency class.

Residency programs must comply with the training requirements of their respective boards. The current policy of the American Board of Radiology (ABR) states that "leaves of absence and vacation may be granted to residents at the discretion of the program director in accordance with the institution's rules" (35). The ABR defines prerequisites for the ABR Core Exam (36) and states that "Core Exams are administered twice yearly, typically in June and November. ... A candidate is eligible to take the Core Exam in the 36th month of diagnostic radiology training and must take the exam at the first administration offered after eligibility is attained" (37). Program directors and residents should work together to meet the needs of both the program, in terms of clinical assignments, and the individual, in terms of preparing for the ABR Core Exam and meeting board eligibility requirements, while respecting residents' right to parental leave.

Flexibility, creativity, and advance planning, when possible, are necessary to arrange schedules that optimize the resident experience and cultivate equity. A formal policy for pregnancy and lactation needs should be established, made easily accessible to residents and fellows, and distributed to faculty. This policy should be designed to minimize radiation risk and to avoid overly strenuous work at critical times during pregnancy. The policy should balance training requirements with additional concern for physical and mental health. It is crucial for residency programs to develop a clear and transparent leave policy that is rational, equitable, and thoughtful, to ensure that the needs of residents and fellows, their families, and their infants are met. Residency programs should have clear policies to meet the needs of lactating residents, including both adequate time to express breast milk and appropriate lactation rooms. The proximity of an appropriate lactation room can minimize lengthy disruption to resident learning.

Radiology organizations must appropriately address the radiation protection needs of pregnant women. Custom-fitted aprons and maternity apparel made of lightweight materials can accommodate a pregnant radiologist’s needs throughout her pregnancy. The radiation safety office should dispense dosimeters to declared pregnant workers. Depending on the availability of other radiologists to handle the fluoroscopic work, pregnant radiologists may be able to be reassigned. Flexibility in coverage may be dependent on the workplace resources. With proper education, safety measures, and protection, however, there is little threat to the fetus or mother (38).

**Handling FMLA and FLSA in Practice: Meeting the Needs of Pregnant Radiologists in Practice**

Intentional planning is necessary to fill FMLA voids. Large, well-staffed departments are more equipped to absorb personnel loss for defined periods of time. Filling these voids is more challenging for smaller departments and those with highly subspecialized divisions or practices. According to the 2016 ACR Commission on Human Resources Workforce Survey, 82% of practices reporting FMLA leave in the previous year made no workforce changes to cover the FMLA leave (27). When possible, advance notice enables a department to hire locums tenens personnel or contract with temporary radiologists to cover the clinical work while an employee is out on long-term FMLA leave. In many institutions, a minimum time of 3 months (often more) is required to process a newly hired radiologist’s credentials and grant clinical privileges necessary for practice; state medical licensure may require an even longer period of time. Radiologists who work in these capacities often have many state licenses and many previous employers whom the medical staff office must contact. To confound the hiring process, such radiologists are often contracted with other practices months in advance, thereby limiting their availability when needed suddenly to cover an unexpected long-term absence. Orientation to the practice and “onboarding” to the institution often span several days or even a week, thus limiting the actual clinical working days of the hired radiologist when first hired.

Radiology practices must, at minimum, meet the requirements of FLSA, including adequate time to express breast milk and an appropriate lactation facility. The proximity of an appropriate lactation facility can minimize a radiologist’s time away from clinical service and decrease the stress of both the radiologists with lactation needs and those providing coverage for the clinical service in their absence.

**Addressing Burnout and Promoting Well-Being**

Addressing burnout and promoting well-being for women in radiology are imperative. Women physicians have 1.6 times the odds of reporting burnout, compared with men, and these odds increase by 12%–15% for each additional 5 hours worked over 40 hours in a week (39). Given the fact that the standard radiology workweek exceeds 40 hours, the potential for burnout is high. Although often considered together, burnout and well-being are distinct entities. Burnout, a combination of loss of enthusiasm for work, feelings of cynicism, and a decreased sense of
personal accomplishment, is only one component of physician well-being (40). Well-being is a “dynamic and ongoing process involving self-awareness and healthy choices resulting in a successful, balanced lifestyle” (41).

Encouraging physicians to prioritize their own well-being is challenging. Physicians inherently place the care of others in front of their own well-being (42). The task of promoting and prioritizing radiologist well-being is a challenge that will require organizations to invest time, money, and resources. However, physician well-being and satisfaction with work are essential to the future success of radiology practices and optimal patient care. Dissatisfied physicians are more likely to experience burnout and either cut back at work or leave their practice (43).

Burnout and well-being must be addressed for trainees as well. The ACGME includes physician well-being and patient safety within the primary focus of the ACGME Clinical Learning Environment Review (44) and has revised the ACGME Common Program Requirements to include a section on well-being. These policies have been designed to create a positive and safe work environment for residents and fellows. Residency training shapes the skills and values that trainees will carry into their future independent practices. Creating a supportive work environment in which residents and fellows find meaning in their work and a sense of purpose benefits the entire profession.

Radiology practices should develop programs and policies to (a) encourage optimal well-being; (b) educate individuals about how to identify those who may be experiencing burnout, depression, and/or substance abuse; and (c) provide access to confidential, affordable treatment at all times (45). Practices should identify stressors and supporters in the workplace and offer a well-being plan for their radiologists. Radiology organizations should encourage physical and mental well-being for radiologists and strive to establish a safe work environment for all to seek help when needed.

Radiology leaders can take several steps to improve physician well-being and foster a more positive work environment. A key strategy is starting a physician well-being program, with a designated faculty or staff member as wellness champion. A physician well-being program can provide education on wellness and burnout and offer an opportunity to listen to physician concerns. Additional strategies include clarifying professional roles and work expectations, supporting work-life integration, and considering a shift in the compensation model to reward quality and not just quantity (41,46).

In addition to developing a culture supportive of physician well-being, practices must establish a zero-tolerance policy for intolerance, discrimination, and bullying. Most institutions have human resources policies and procedures in place to handle reported harassment. Women are especially vulnerable to sexual harassment. In the results of a recent survey study of radiologists, more women responders (24.4%) than men (4.4%) reported being victims of sexual harassment, and more women than men reported witnessing sexual harassment (47). The findings from the study also revealed that less than 30% of victims were likely to report the incident, with women being less likely to make a disclosure (47). Women in leadership can change workplace culture; when women are well represented in core management positions, harassment is less likely to occur (48). Antiharassment training programs and formal grievance systems are only partially effective; the goal of hiring and promoting women is an advantageous and more effective strategy to reduce sexual harassment at work (48).

Uncomfortable work environments can lead to dissatisfaction and attrition. In health care today, multidisciplinary interprofessional teams are the norm; all employees need to respect one another and treat each other with civility. As with unconscious bias, inappropriate behaviors must be recognized and dealt with immediately and effectively in an open and transparent manner.

Organizations must be clear that it is never acceptable to harass or mistreat a coworker. Swift corrective action must be taken with regard to individuals who demonstrate a pattern of unchecked inappropriate behavior. Organizations must mandate that this behavior is simply unacceptable in the workplace in the modern era.

Offering Flexible Work Opportunities
Flexible work options offer an excellent opportunity to improve physician well-being. However, clinical service demands in radiology pose a challenge to promoting flexibility. Diagnostic imaging examinations and interventional procedures are requested as needed for patient care, and radiology practices must strive to meet these clinical needs, often 24 hours a day, 7 days a week. The lack of predictability in patient volume and case mix presents a continual scheduling challenge. Alternative hours, compressed schedules, part-time employment, job sharing, and remote work opportunities represent possible solutions to improving flexibility and physician well-being in radiology practices.

Alternative hours and compressed schedules offer a full-time alternative to traditional working hours. Organizations with staggered and overlapping working hours may be better able to accommodate alternative hours; for example, one radiologist might prefer working 6:00 AM
to 3:00 PM or 12:00 PM to 9:00 PM, providing extra coverage to catch up from the nighttime or during peak times during the day. A schedule of longer daily hours compressed into a 4-day workweek may provide flexibility to meet the needs of some radiologists; however, there must be another radiologist to cover that “5th day.” Many practices have on-site radiologists 24/7/365 and need radiologist coverage during nontraditional work hours. These organizations may need and value radiologists who prefer to work during these alternative hours.

Part-time employment is variably defined and is practice specific. From a financial perspective, it is often impractical and too expensive to hire many part-time employees when they do not provide the same degree of service to the institution as do full-time employees. According to the 2017 ACR Commission on Human Resources Workforce Survey, 76% of practices have part-time radiologists in their groups, but only 16% of radiologists work part-time; more women (30%) than men (10%) are working part-time (1).

However, part-time and job-sharing options offer reduced-hours alternatives that might appeal to some radiologists. Matching an employee’s desired workload and work schedule with the group’s needs is not an easy task, and the introduction of partial workload opportunities into a practice presents its challenges. Radiology organizations or health care systems may provide benefits to both part-time (depending on the practice and to what extent the radiologist is less than 1.0 full-time equivalent) and full-time radiologists and typically support the infrastructure to employ them (from ensuring the number of parking spaces to having the finances to provide some or all of their benefits). The financial burden of part-time employees in a practice can be partially offset by adjusting their compensation accordingly; this adjustment should be transparent and applied as uniformly and consistently as possible across individuals in the practice.

In the modern era, the stigma of working part-time needs to be erased. Traditionally, women in part-time positions reported that they were working more hours for less pay, were overlooked for promotions and challenging projects, and were viewed by their colleagues and supervisors as being less committed to their jobs. The results of studies have shown that part-time physicians can be productive and attain a high level of job satisfaction; however, different factors contribute to their sense of fulfillment, compared with those factors for full-time physicians (49). Leaders can innovate in the workplace to retain highly motivated women radiologists wishing to work part-time by creating positions to help them fulfill their potential. Understanding the factors that motivate and satisfy part-time radiologists may help departments and medical centers better respond to physicians desiring part-time work.

Although somewhat challenging and often slightly more expensive to implement than traditional working hours, these alternative work opportunities provide flexibility that can contribute to improved physician well-being and retention. Substantial financial costs are associated with physician turnover; in one medical school, the average cost of replacing a specialist exceeds $200,000 (50). By incorporating more flexible work opportunities, practices can improve employee engagement and satisfaction in the workplace, thus reducing attrition and boosting their organization’s overall success (11).

Providing Mentorship and Career Advancement Opportunities for Women

In the results of a recently published longitudinal study, investigators reported that gender disparities in rank, retention, and leadership remain in academic medicine (4). Women were less likely to be promoted to professor, to remain in academia, or to attain senior leadership positions. The authors emphasized the criticality of early mentorship and academic support for women to reach requisite academic milestones and called for a culture change aimed at diversity and inclusivity, one that will facilitate women in realizing their full potential as leaders and academic physicians. Although the study did not address radiologists specifically, the findings, implications, and recommendations can be applied across many specialties, including radiology.

Departments and group practices should establish mentors for junior or recently hired radiologists; mentors from other specialties can be particularly valuable because they offer a complementary perspective. Men can effectively mentor women, and vice versa. To be most effective, it can be particularly helpful if mentors recognize traditional barriers to the advancement of women in medicine and tailor their mentoring accordingly to anticipate and meet women’s needs. Faculty development programs can provide access to career advancement opportunities and increase satisfaction with the pace of professional development for women in radiology (51). Practices should acknowledge and celebrate the achievements of all radiologists. For example, “success stories” can be shared at monthly meetings of the faculty or group; these stories can be published in departmental or institutional newsletters.
Practice leaders can also implement a “reverse mentoring” program in which more junior colleagues can engage in a dialogue to improve leaders’ understanding of gender and generational differences in culture, values, motivation, and skills. The “mentor-up” strategy proved to be successful in creating a gender-inclusive environment at a major corporation (Procter & Gamble, Cincinnati, Ohio) by effectively addressing the shortage of women among the senior management and reducing turnover of women in management positions (52). A similar approach to learning and sharing between radiology leaders and aspiring women radiologists may improve understanding of the individual perspectives and talents, the workplace culture, and the needs of women.

**Ensuring Equity**

Opportunities for men and women to succeed in a radiology department must be equal. Policies must be transparent and available, for example, on a web platform for ready access. Promotion and tenure policies should be clear and comprehensive and readily available. Faculty or partners should be encouraged to offer suggestions and provide input at the time of policy development and during annual policy review and updating.

Gender equity begins with gender-neutral words (such as chair, not chairman) to establish a level playing field for all employees and employers alike in academic settings and private practices. Salary, incentives and bonuses, and other forms of compensation should be based on objective criteria known to and equally available to all radiologists. Undisclosed practice leader discretion in compensation—which includes not only base salary and incentives and/or bonuses but also call pay and call distribution, administrative stipends, and professional development monies—provides an opportunity for bias and inequities. Equity and fairness must also be exercised with regard to the process by which appointments to leadership positions are made within the department, as well as to the salary and protected time tied to these opportunities. Although the results of recent studies suggest that radiology is approaching parity in the salaries of men and women in a small number of public medical schools, there is still a paucity of evidence to demonstrate salary equity in all medical schools, public and private, and in private practice or private medical centers across all states (53,54). Following the guiding principle—same pay for same work—when implementing gender-neutral and fair total compensation plans in academics as well as private practice can help to ensure that equity is the norm throughout radiology departments.

The department chair or group practice leader should have the vision to map the trajectory for the growth and development of the collective and individual radiologists. Leaders need to communicate effectively to convey their commitment to equality and inclusiveness and to promote dialogue (55). Diversity metrics should be routinely followed and shared with the remainder of the practice and institution for accountability and should be corrected when the metrics veer off course. Although change management can be challenging, the leader has the authority and the duty to drive change to optimize the workplace.

**Conclusion**

Hiring and retaining women in radiology should be a priority for radiology leaders, who can help create an organizational climate that is supportive of women. Women bring a different perspective to the workplace. Their collaborative, empathetic, and compassionate approach to patient care and education is a powerful asset that the radiology community should embrace and leverage. First, however, there must be a directed effort to remove barriers to women’s entry into the specialty of radiology and to women’s career advancement once in the field.

Radiology leaders can enhance gender diversity by making a compelling case for diversity, ensuring that recruitment and promotions are fair and consistent, and investing in women radiologists by addressing their needs in the workplace (3). Diverse and engaged radiology teams will benefit our departments and, most importantly, our patients and their families.

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Spalluto et al (1) are challenging us with a call to arms. Why? Because despite the ample literature assessing the lack of gender diversity in radiology, the countless plenary session discussions, and the formation of national organizational task forces, the number of women in our field has not changed. “Women are, and have always been, underrepresented in radiology” (1). This is a powerful absolute.

Spalluto and her colleagues (1) provide an important summary of the FMLA and the 2010 amendment to section 7 of the FLSA. For leadership, a thorough understanding of these laws is imperative, but we cannot stop there. If women—and men—are to thrive in a work environment, leaders must embrace flexible work schedules. As medicine and radiology have transitioned to 24/7 coverage, the opportunities for creative scheduling are actually increasing, and we need to be willing to think beyond the traditional constructs if we are to promote healthy work-life integration. Part-time positions are fulfilling for some practices have benefit constructs if we are to promote healthy work-life integration. Part-time positions are fulfilling for many productive women and men and provide workforce diversity and depth of expertise, because many early career radiologists as well as those in later career stages are desiring this alternative scheduling. Some universities do not recognize part-time status, but fortunately, this is becoming less common, although tenure challenges remain. Some practices have benefit structures that are cost prohibitive for part-time status. Yes, part-time scheduling is more challenging to manage and, in some cases, is even more costly, but these excuses are shortsighted. Lack of workforce diversity is even more difficult to manage, ensures that a practice will not
achieve its full potential, and will be more costly in the end.

I would caution radiology leaders to use this article as a road map for gender diversity and inclusion rather than an à la carte menu for improvement. I would challenge us not to pick and choose but rather to systematically engage around each of the action items of Spalluto et al (1) and, importantly, as a profession, engage students. Yes, we should actively move toward more inclusive work environments, but it cannot stop there because that does not address the core of the issue. It is a zero-sum proposal if we do not enlarge the pipeline. We will simply shift women from one department to another, from one practice to another. We start with medical students, but I would argue that we should start earlier—with our women students in colleges, high schools, and even earlier. Girls and women should know that being a radiologist is one of the most fulfilling and fun careers in the world.

Reference