Diversity Matters in Academic Radiology: Acknowledging and Addressing Unconscious Bias

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Abstract

To meet challenges related to changing demographics, and to optimize the promise of diversity, radiologists must bridge the gap between numbers of women and historically underrepresented minorities in radiology and radiation oncology as contrasted with other medical specialties. Research reveals multiple ways that women and underrepresented minorities can benefit radiology education, research, and practice. To achieve those benefits, promising practices promote developing and implementing strategies that support diversity as an institutional priority and cultivate shared responsibility among all members to create inclusive learning and workplace environments. Strategies also include providing professional development to empower and equip members to accomplish diversity-related goals. Among topics for professional development about diversity, unconscious bias has shown positive results. Unconscious bias refers to ways humans unknowingly draw upon assumptions about individuals and groups to make decisions about them. Researchers have documented unconscious bias in a variety of contexts and professions, including health care, in which they have studied differential treatment, diagnosis, prescribed care, patient well-being and compliance, physician-patient interactions, clinical decision making, and medical school education. These studies demonstrate unfavorable impacts on members of underrepresented groups and women. Learning about and striving to counteract unconscious bias points to promising practices for increasing the numbers of women and underrepresented minorities in the radiology and radiation oncology workforce.

Key Words: Unconscious bias, diversity, gender, URM

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INTRODUCTION

Women and underrepresented minorities are significantly underrepresented in the radiology physician workforce despite an available medical student pipeline [1]. To address this dearth, the ACR created the Commission for Women and General Diversity to identify barriers to a diverse physician workforce in radiology and radiation oncology (RRO) and to provide policy recommendations to overcome those barriers. Diversifying the radiology workforce has become an increasingly important goal, not only because of underrepresentation but also because of population changes and their implications. By 2050, the percentage of Asians and Hispanics will triple, the black population will double, and white people will be the minority racial group [2]. Thus, there will be an increase in patients and prospective providers from traditionally underrepresented groups. Increasing the diversity of the workforce may facilitate addressing the varied needs of diverse patient populations and will help mitigate persistent disparities in health care access, delivery, and outcomes that beleaguer those populations from cradle to grave. To meet challenges and optimize opportunities related to changing demographics, radiologists must bridge the gap between numbers of historically underrepresented minorities in RRO in contrast with other medical specialties. They need to understand impediments to expanding diversity of

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radiologists and to identify ways to remove those impediments [3]. They also must attend to lower percentages of women in radiology as contrasted both with the US population and women who attend medical school [1]. Because they constitute 50% of the US population and more than 50% of the college-bound population, girls and women are an important source of human capital for the RRO workforce [4].

In this review, we explain how and why diversity matters to radiology and explore how managing unconscious bias can help address challenges to diversifying the field.

DIVERSITY MATTERS

Diversity has long been a priority for many institutions and organizations. More often than not, it has been talked about more than acted upon. In higher education, diversity often denotes an ethical imperative to provide access to traditionally underrepresented groups. This imperative has become more pressing in recent years, leading organizations such as the ACR to become more serious about its efforts. In general, diversity refers to similarities and differences among humans on the basis of their social identities. In the United States, the most salient social identity groups are gender, race, ethnicity, age, sexual orientation, social class, nationality, religion, and ability status [5]. These categories matter because they encompass hierarchies that place members in dominant or nondominant positions that can affect their lives. Dominant groups tend to have more economic and cultural power than nondominant groups, and their ways of knowing and being tend to be more valued. Also, nondominant groups are more likely to experience discrimination and to be associated with negative stereotypes [6]. Within institutions of higher education and medical care, these social identity dynamics influence policies, procedures, and practices that foster inequity and perpetuate health disparities.

Efforts related to diversity in medicine generally, and RRO specifically, tend to focus on gender and race, with the intent to improve access and success for women and members of racial groups that are underrepresented in medicine (URM) [7].[1] However, researchers and practitioners increasingly are studying other identities, such as sexual orientation, gender identification, religion, geography, age, disability, veteran status, and disadvantaged background.

WHY FOCUS ON URM AND WOMEN

Research about diversity in radiology has focused more frequently on women than on URM [3]. This growing body of work indicates that women are underrepresented across most aspects of radiology relative to the US population. Moreover, although percentages of women matriculating in medical school and the medical profession have increased, radiology has not kept pace [1]. Women are significantly underrepresented as residents, academic faculty members, and practicing radiologists [1]. They are represented to a greater extent than men in academic radiology [1] and certain subspecialties (eg, pediatric radiology and women's imaging) [7]. Among the 20 largest residency training specialties, diagnostic radiology ranks 9th. However, it places 17th in female representation. Within academic radiology practices, women are underrepresented among senior faculty members, and they are less likely to be tenured [8]. Among medical school faculty members, women and men are represented in equal numbers as assistant professors [8]. However, many women remain assistant professors for their entire careers. The percentage of female full professors in academic radiology departments is 18% as contrasted with 26% in the fields of pediatrics and obstetrics and gynecology [8]. Women also are underrepresented in leadership positions in radiology. In academic contexts and in private practice, 14% of men are leaders, in contrast to 7% of women [9]. Among radiology department chairs, 16% are women [9].

Although research on the racial and ethnic composition of RRO is scarce, it documents radiology as one of the least racially diverse health care workforces, with underrepresentation of URM groups across all practice levels [1]. Statistics on women and URM in RRO show no or limited increase in representation for women or underrepresented minority groups between 2002-2003 and 2010-2011, with a less than 1% change per year [8]. Thus, a need clearly exists for proactive measures.

Striving to increase numbers of URM and women in radiology matters for more reasons than improving their representation in RRO. In general, a diverse workforce helps enhance creativity, productivity, problem

[1] The American Association of Medical Colleges adopted the term *underrepresented in medicine* to refer to racial and ethnic populations that are underrepresented in the medical profession relative to their numbers in the general population (African Americans, Mexican Americans, Native Americans, and mainland Puerto Ricans).