

A Program Director's Guide to Cultivating Diversity and Inclusion in Radiology Residency Recruitment

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Diversity and inclusion are vital elements to the success of any group. Indeed, evidence from the business world indicates that a group's overall talent level is a function of its collective cognitive diversity. The ability to effectively problem solve, innovate, and adapt to change all depend to a large degree on the biases and life experiences of an organization's constituent members. As other industries have come to embrace this principle, their recruitment strategies have included placing a premium on employees who can think differently from one another.

The benefits of diversity and inclusion have been touted in the medical literature and on social media sites in recent years. The radiology Twitter community often discusses the nuances of diversity and how it benefits all stakeholders in a radiology department. In essence, a diverse group allows for collaboration among colleagues with dissimilar experiences and perspectives, increasing the odds for discovery of new concepts and innovation (Fig 1) (1). Patients may stand to

benefit the most, as diversity among practicing physicians is believed to be a key component of improving access and reducing disparities to health care in the United States (2,3).

Departments that consistently work hard to improve diversity and inclusion can create a solid foundation for fostering cultural competence. Cultural competence in radiology describes the ability of radiologists and other department members to deliver services that meet the diverse social and cultural needs of patients. Radiology educators are vital to cultivating cultural competence within a department by screening for evidence of diversity and intercultural experiences in residency applications.

A concerted effort to improve diversity through resident recruitment likely means a departure from the traditional approach to screening applications. The traditional approach looked solely at metrics (such as grades and United States Medical Licensing Examination (USMLE) scores), with little weight being given to other qualities the applicant brings to the table. Reviewing applications holistically may be the best strategy to avoid missing out on outstanding candidates in today's diverse applicant pool. Using this technique, an individual's professional and life experiences should receive nearly as equal weighting as other factors such as grades and test scores during the selection process. This paper focuses on key components in the residency admissions process for improving program diversity and inclusion.

HOLISTIC APPLICATION REVIEW

A holistic approach to applicant review provides a balanced consideration to experiences, attributes, and academic metrics when considering an applicant's potential value as a resident physician (4). "The holistic review is a strategic, mission driven, evidence-based process that recognizes diversity as a critical component to excellence. It offers a flexible framework for selecting future physicians and facilitates achieving

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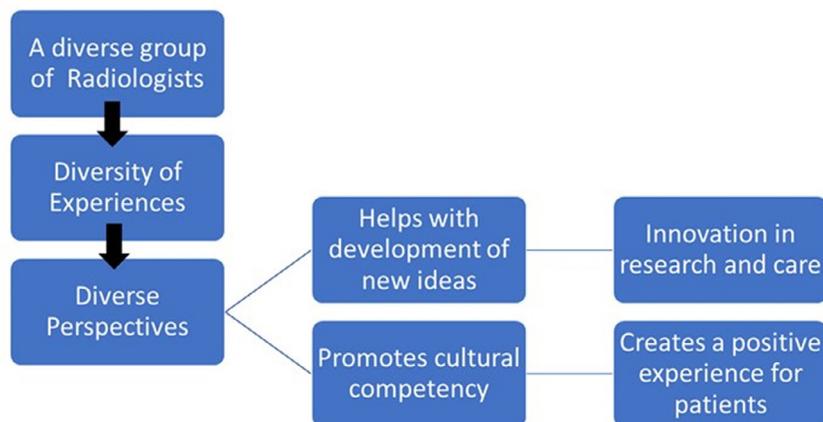


Figure 1. Why diversity and inclusion are important in radiology residency.

institutional missions while addressing societal needs” (5). For some time now, medical school admissions committee has been using the holistic approach to applicant review to increase diversity among medical students.

For example, applicants from financially disadvantaged backgrounds often have a different mix of experiences listed on their curricula vitae compared to peers, as they may be unable to take advantage of opportunities like unpaid summer research internships. As a result, they tend to have less research experience and fewer resulting publications listed on their applications. If educators emphasize traditional filters to screen applications, such as number of research experiences or published research articles, these candidates would likely receive less consideration. Ironically, the strong work ethic and determination that these applicants demonstrate is not searchable by metrics in their applications, and yet many educators feel that these qualities may be more vital to predicting success as a resident and practicing radiologist than research experience. In some cases, we need to look harder to do a holistic review and in other we need to look less as is the case of applicant photos. It has recently been suggested that there is evidence of discrimination against facially unattractive and obese applicants in radiology resident selection (6). Based on this, it would be suggested to blind reviewers to the applicants’ photo to prevent this kind of selection bias.

Another important consideration to holistic review is evaluation of the applicant’s overall journey to residency. A circuitous path to residency, one in which the applicant overcomes obstacles and refuses to give up, speaks to their persistence and grit, qualities shown to be associated with resilience and adaptability. This also tends to indicate a strong desire to pursue medicine and often radiology in particular. These applicants may in fact be better equipped to adapt to the unpredictable changes inherent to both residency training and radiology practice.

Medical knowledge is certainly an important competency domain that we use to evaluate applicants, often by way of clerkship grades and standardized test scores. However, there are other skills vital to the successful practice of medicine that simply cannot be measured by these superficial metrics,

including commitment to service, cultural sensitivity, empathy, capacity for growth, emotional resilience, strength of character, interpersonal skills, curiosity, and engagement (7). These higher level skills can be found in other areas of the application by actively looking for them with a holistic approach.

THE COMPONENTS OF THE APPLICATION

The attributes critical to holistic review tend to be found in several key components of the application, including the medical student performance evaluation, curriculum vitae (CV), personal statement, and letters of recommendation. If the research section of the application is blank or publications are scarce, focus attention to the paid employment section to see if multiple jobs are listed instead. A choppy CV may be because an applicant is the first in his/her family to go to college and simply lacks personal guidance. Other applicants, for example medical students who had to take time off for parental leave, may have substantial gaps in their CVs. This does not mean they will not be a good radiology resident; it just means they may have had to overcome personal or even financial hardships along the way.

Look to the medical student performance evaluation and the personal statement for explanations of a nontraditional path. A nontraditional path may include taking leaves of absences or having other careers before medicine. These two documents also might provide insight into a family or personal illness, financially disadvantaged status, or other hardship. For example, an LBGQT applicant may use their personal statement to explain how they disclosed their lifestyle to a nonaccepting family member, resulting in abandonment and lack of financial support. Such an applicant might have more paid employment experiences at the expense of volunteer or charity work. The personal statement can also give you a glimpse into their capacity for empathy or growth. An applicant’s CV can demonstrate their commitment to service and how far they have come over time. Letters of recommendation may provide insight into why an applicant may not have performed as well as their peers. In addition,

letters of recommendation may attest to an applicant's empathy, interpersonal skills, and strength of character.

The holistic approach does not advocate for a complete disregard of grades and board scores. Rather it acknowledges that reviewing applications with overemphasis on scores risks screening out diverse qualified applicants. Program directors often have reservations about this approach for fear of jeopardizing resident success or program quality. However, no consensus exists regarding the best predictors of resident success, including the use of USMLE scores (8). Why assume that an applicant with a USMLE step I score of 250 will become a more successful, empathic physician than an applicant with a 220? The USMLE does not purport to measure all characteristics important for success during residency or in the practice of medicine (8). There is great debate currently in the radiology education community about if the USMLE should be made pass/fail for this very reason (9).

THE INTERVIEW

The interview is meant to learn about the applicant in a more personal setting and completes the holistic approach. The face-to-face interaction provides a glimpse into the kind of person the application describes. At this point, it is not about the numbers, but about the individual sitting in front of you. The applicant should be encouraged to spend the time talking about themselves and explaining their application in their own words. Apparent deficiencies, red flags, or unusual paths to medicine should be addressed. This is a great opportunity to assess the applicant's interpersonal skills, professionalism, and cultural sensitivity. Ultimately, the interview is the best chance for program directors to find out more about the applicant and find out about what experiences in their life would make them a good resident.

To successfully recruit a diverse group of applicants, it is essential to create a welcoming environment. Today's applicants have their first looks at programs well before interview day through department websites. To this end, it is vital for departments to formally develop and address their commitments to diversity and inclusion, as well as market their departmental diversity initiatives, prominently on the main page of their websites. The photos selected for use on the website should also demonstrate this commitment. Displaying the residency's diversity and inclusion efforts can provide potential applicants with a feeling of safety, security, and belonging.

The details of the interview day are also important to making a program feel welcoming. A diverse panel of interviewers demonstrates the residency program's commitment to inclusion. "Manels," or male only interview panels, should be avoided at all costs. Applicants are naturally comforted when they see faces and backgrounds that look like theirs. Finally, it is important to educate the interviewing faculty about unconscious bias. A quick orientation prior to interview season that explains unconscious bias and how to mitigate it can help. This can be as easy as having the interview

team whether reading a short article on unconscious bias (10) or watch the video on the Association of American Medical Colleges (AAMC) website (https://www.aamc.org/members/leadership/catalog/178420/unconscious_bias.html)

In addition, another way to avoid bias during the interviews is for the interview to be structured (11). Behavioral interviews have been shown to be valuable in selecting candidates (12). Unlike traditional interview questions (ie, tell me about yourself), behavioral interview questions give the candidate the opportunity to give concrete examples of what they have done in the past that will make them successful as a radiology resident (ie, give me an example of when you went above and beyond for your job). These interviews can bring out qualities not evident on the application (teamwork, grit, conflict resolution) useful for a holistic assessment.

During that orientation, it may be helpful to review the "do not ask" questions outlined by the AAMC (13). According to the AAMC, interviewers should not discuss the following topics with applicants: age, race, religion, socioeconomic status, ethnicity, sexual orientation, gender identity, national origin, lineage, ancestry, primary or native language, marital status, maiden name or family surname, relationships or people applicant lives with, family issues (parental status, age of dependents, plans for children), height and weight, physical and mental disabilities, physical appearance, personal activities that probe for personal affiliations, military discharge, arrests, criminal convictions, and other programs or specialties applied to/ranking plans (13). Also, during an in-person orientation prior to interview season, consider including a review of your department's diversity and inclusion policy and diversity initiatives so that interviewing faculty are familiar with them if asked by candidates.

RANKING

The entire interview and ranking process should be conducted in a manner that minimizes both conscious and unconscious bias. Yet within this framework, programs should rank applicants according to the specific diversity goals they are trying to achieve. For many programs, this may mean making it a priority to rank Under-represented in Medicine (URM) and female applicants more aggressively (14). It is crucial when ranking applicants to consider the potential strengths that each could bring to the department. Ranking all your URM and female applicants as a subgroup parallel to the overall process and then merging them with the overall applicant pool may allow for a more focused review during the ranking process (14). Again, experienced educators would caution putting too much stock solely in the traditional knowledge-based metric of the USMLE score. A scoring system that incorporates grades, USMLE score, research, life experience (such as paid employment), persistence/grit, and publications is a useful way to consider all factors (Fig 2). In larger programs, this scoring system can be used after the interview on the smaller subset of applicants, if

Metric	Points	
USMLE step 1 score	•	>240 = 3, 240-230 = 2, 229-220 =1, <220 = 0
Medical School Grades/Ranking		Outstanding = 3, Above Average = 2, Average=1, below average =0
Research		Extensive = 3, Moderate = 2, Some=1 None = 0
Publications		Extensive = 3, Moderate = 2, Some=1 None = 0
Paid Employment		Full time = 3, Part time= 2, During breaks = 1, none = 0
Persistence/Grit		Significant 3, Moderate = 2, Some = 1, none = 0
Cultural sensitivity/commitment to service		Significant 3, Moderate = 2, Some = 1, none = 0
Empathy/strength of character		Significant 3, Moderate = 2, Some = 1, none = 0
Interpersonal skills		Outstanding = 3, Above Average = 2, Average=1, below average =0
Capacity for growth/curiosity		Significant 3, Moderate = 2, Some = 1, none = 0
Total score		

Figure 2. Example of a holistic ranking rubric.

the programs applicant pool is too cumbersome to use it on initially.

CONCLUSION

The journey to improving diversity and inclusion in a residency program requires a unified department diversity policy and a strategic plan for application review, interviewing, and ranking. Taking the time to cultivate diversity and inclusion in a residency program benefits the department, local community, and radiology specialty as a whole. It fosters an environment with assorted perspectives leading to positive patient experiences and innovations in care. The use of the holistic application approach works to improve the diversity of the candidate pool by attributing more importance to application criteria, which may ultimately correlate better with success in residency and independent medical practice.

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