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CLINICAL CASE
Sex Discrimination in Selection for Residency
Commentary by James Nuovo, MD

It was midway through the school year, and the third-year medical students had been excused from their clerkship duties and classes to attend a residency fair at the medical school. Representatives from each of the teaching hospital's major medical departments were present to answer questions. Many of the spokespeople were faculty members who were excited to see medical students interested in their respective fields.

Amanda, who was interested in cardiothoracic or orthopedic surgery, stopped in front of the surgery table and introduced herself to the program director.

"Hi, Dr. Harrison. My name is Amanda Carter. My sister, Karen, did research with you when she was a medical student."

Dr. Harrison remembered her sister well and asked how Karen was faring in her first year of surgery residency. After a couple of minutes updating him about Karen and expressing her own interest in surgery, Amanda went on to another table.

After the conversation, Dr. Harrison turned to a colleague and confided, "I remember during the selection process, I was debating between Amanda's sister, Karen, and a male applicant. They were equally qualified, but I ranked Karen lower. Based on my experience and the numbers, women just don't stay in practice as long."

Seeing his colleague frown over that statement, Dr. Harrison was quick to add, "Hey, it's not prejudice, it's a fact."

Commentary
The opinions expressed by Dr. Harrison in this case are offensive. They show a bias against a candidate for a residency position because of her sex, implying that it should play a role in how candidates are assessed. As with every other job, one of the guiding principles for hiring should be nondiscrimination. Specifically, all institutions should support equal opportunity and not judge candidates on the basis of race, color, national origin, religion, sex, gender identity, pregnancy, physical or mental disability, medical condition, ancestry, marital status, age, or sexual orientation.

Dr. Harrison received some immediate feedback from his colleague in the form of a frown. He attempted to justify his indefensible position by suggesting that his opinion was not prejudice but based "on the facts." It seems unlikely that this is really an argument about facts. It is more likely that Dr. Harrison is angry about something, although what that might be is not made clear in the vignette.

This being said, what *are* the facts concerning women in medicine? Over the last 30 years there has been a substantial change in the demographics of medical students, residents, physicians in practice, and physicians on faculty. The Association of American Medical Colleges (AAMC) web site has links to resources that document this shift [1]. In 2006-2007 women represented 49 percent of applicants to medical school, 49 percent of medical students, and 44 percent of residents [2]. In the academic world, 17 percent of full professors, 21 percent of division chiefs, 11 percent of department chairs, 33 percent of associate deans, and 12 percent of medical school deans were women [2].

AAMC also provides an extensive listing of the distribution of residents by specialty and information on the trends over the previous 10 years. Overall, women increased from 34 percent of all residents in 1996 to 44 percent in 2006 [3]. There clearly are sex differences in the distribution of residents across specialties, but changes in that distribution have been occurring over the last decade. For example, anesthesiology in 1996 was a field that was 26 percent female and is now 33 percent. Women make up 30 percent of the surgery population, up 11 percent from 1996; and women currently represent 76 percent of ob/gyn physicians—a 15 percent increase from 1996 [3].

Researchers have been assessing the factors that play into choice of specialty for some time and, in particular, the influence of lifestyle on specialty selection. Dorsey and associates examined changes in medical students' specialty choices, by gender, from 1996 to 2003 [4]. They found that the preference by men and women for what the investigators termed "controllable lifestyles" accounted for a large part of the pattern of specialty selection that had occurred over the 7-year study period. They found striking similarities in specialty choice trends between women and men. A 2007 study by McCord and colleagues looked specifically at factors that led surgery residents to seek training in particular subspecialties. Seventy-four respondents completed the survey—16 women and 58 men. All respondents indicated that the intellectual appeal and clinical opportunities in the field were important considerations in their future careers, as was having had an influential mentor during residency [5]. In the McCord study, significantly more women than men (69 percent versus 43 percent) listed lifestyle as an important factor in future career decision.

A question more closely related to our case is whether sex discrimination affects career selection. In 1997, Stratton and associates surveyed fourth-year medical students from 14 different schools [6]. Based on more than 300 responses, the investigators found that women were more likely to indicate that sex discrimination and sexual harassment influenced their specialty choice. What sorts of discrimination do women medical students and physicians experience? Shrier et al. looked at the

experiences of a unique population—136 pairs of physician-mothers and their physician-daughters [7]. The daughters reported higher rates of harassment during medical school and by patients; the mothers experienced harassment by their colleagues [8]. Sex discrimination was lower for daughters than for their mothers, but still substantial.

Witte and colleagues asked graduating medical students from 12 schools to write personal accounts [9] of their experiences with sex discrimination and sexual harassment. One-hundred and sixty-six students (106 women and 60 men) responded with narratives of events that they perceived as either discriminatory or harassing. Men were more likely to report educational inequalities, that is, perceived differences in the training environment for men and women. Women were more likely to report incidents of sexual overtures, inappropriate touching, and sexist remarks [10].

What should be done to eliminate, or at least reduce, the influence of sex discrimination on the residency selection process? Cheever and associates suggest methods to improve medical students' comfort with and skill in handling sex- and gender-related inquiries during residency interviews [11]. They developed an educational intervention focusing on sex-, gender-, and family-related questions that may arise during the selection process. The goal was to help students recognize inappropriate questions and situations and handle them effectively. Cheever et al. suggested that, first, candidates recognize that it is inappropriate for an interviewer to ask about race, religion, creed, national origin, birth place, citizenship, gender, marital status, sexual orientation, children, age, and birth date. One way to practice responding to an inappropriate question is to do a mock interview with a faculty advisor.

The authors also recommend that applicants look at the track record for women at the institution of interest. Are there women in leadership positions? Are they well-represented on the faculty? You can get a sense from the residents during your interview day as to whether the program is supportive of all its residents.

Finally, I would add that it is a good idea to look for opportunities to discuss professional development for women at your school and at the national level. There might be a student interest group at the school. Nationally, the AAMC has Professional Development Seminars, and The American Medical Women's Association's (AMWA) activities include "providing and developing leadership, education, expertise, mentoring, and strategic alliances" [12].

In summary, there have been substantial changes in the past 30 years for women in medicine. Despite this progress, the profession is not immune to the effects of sex and gender discrimination. There are federal and state employment laws that apply to the residency selection process. How we respond to the sex bias that we see and experience is important. If the total measure of response is, as in this scenario, a frown, we all fall short in finding effective ways to address this problem.

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