MAYO CLINIC

EDITORIAL

June 2017
Volume 92
Number 6

MAYO CLINIC
PROCEEDINGS

Gender Differences in Medicine—From Medical School to Medicare

See also page 870

In 1969, as the first medical student to be a member of my medical school's admission committee, I witnessed a level of gender discrimination I had never even imagined. In considering the application of a female student, a senior member of our committee (and a nationally known clinical scholar) said, "She'll probably have kids and drop out of medicine, so let's not waste the spot on her." Even though her grades, test scores, and documented extracurricular activities were noticeably more impressive than those of the male candidate we admitted immediately after her, we turned down her application for admission. At a time when approximately 7% of medical students nationally were women, our committee was not alone in its "reluctance to train women for medicine, often justified by their failure to use their education."[1]

Fortunately, the intervening half-century has seen a major shift in the role gender plays in medical school admissions and in the gender distribution of the medical profession. As described by Mahr et al[2] in the current issue of *Mayo Clinic Proceedings*, approximately half of all US medical students are women, with women making up nearly a third of practicing physicians. The authors asked whether this movement toward gender equity in medical education is also reflected in gender equity in reimbursement from medical practice. Using national Medicare data for Part B, fee-for-service claims in 2013, the authors were able to identify lower payments to women physicians for treating Medicare patients, after controlling for clinical specialty and years since graduation from medical school. Overall, Medicare payments to women physicians were 55% of those to male physicians.

Although unable to document the cause of this inequity, the authors suggest that it may "be influenced by physicians' domestic responsibilities, which disproportionately fall on women, especially female physicians with dependent children."[1] Do women physicians as a group experience greater domestic responsibility, especially in regard to raising children, than men physicians? If so, is this anything new?

A survey of women physicians who attended Yale Medical School between 1922 and 1999 found that 90% of respondents either had children or were planning on having children, with an increasing trend toward longer periods of maternity leave.[3] A second study of licensed physicians in southern California who had children documented that 85% of female physicians had made career changes for their children, as compared with 35% of male physicians.[4] The most common reported career change was a decrease in work hours. Between 1976 and 2008, women physicians worked an average of about 45 hours per week, a level that was 15% to 20% less than men physicians.[5] A 2015 study found that women anesthesiologists worked 11% fewer hours than men anesthesiologists, with women who were married with children working even less.[6]

"She'll probably have kids and drop out of medicine, so let's not waste the spot on her." The faculty member who spoke these words in 1969 was partially correct. The woman under consideration probably would have had children. She would likely have reduced her work hours in response. She would *not*, however, have wasted the spot. To illustrate the value that a woman student would likely have brought to medicine, I will relate another experience I had.

In 1998, colleagues and I were conducting research in a multispecialty practice group exploring patients' perception of primary care quality. While spending time observing the primary care process from inside the clinic, we noticed something unusual. Each morning the nursing staff members would look to see which primary care physicians they were assigned to work with that day. If a nurse saw that she was working with one of the woman physicians (the physician staff was approximately evenly split between women and men), the nurse would often groan or comment, "Oh, no!" To understand why the nurses seemed to prefer working with the male physicians, we held an informal get-together with the nurses over brunch. The nurses explained that on most days, the women physicians would get behind schedule early in the day and would get further behind as the day went on. The women physicians were spending more time with each patient than their male colleagues—ie, more time than their schedules allotted—and thus they were often behind schedule. The patients who became increasingly disgruntled waiting in the waiting room for their appointment did not express their frustration to their physicians; they expressed their annoyance to the nurses. The patients, however, seemed to value the added time and attention they received from the women physicians. It was the nurses who paid the price. In the end, our analysis found that patients' perceptions of the time the physician spent with them, the degree to which their questions were answered, and the physician's interpersonal manner were more important than the perceived technical skills of the physician in determining patients' overall satisfaction with care.[7]

In their meta-analysis of research on physician gender effects in medical communication, Roter et al[8] reported that female primary care physicians consistently engaged in more patient-centered communication than their male colleagues, with more time spent on emotionally focused talk and more time for patients to talk with the physician and develop a sense of partnership. This focus on patient-centered care results in spending more time with each patient. As Roter described, "Female physicians also spent more time with their patients than male physicians did, an average difference of about 2 minutes, or 10%, per visit. With the increasing time and productivity pressures that plague all physicians, a 2-minute-per-visit increase represents a substantial burden, easily putting a female physician an hour behind her male colleagues at the end of a busy day."

There is another aspect of physician-patient communication that can impact patients' satisfaction with care. When under time pressure to complete the clinical encounter, some physicians interrupt patients before they get to tell their full story, thus shortening the encounter (and staying on schedule). An analysis of videos of physician-patient encounters among primary care residents found that male physicians interrupted their patients sooner than female physicians.[9] Although some may encourage "respectful interruption" in order "to organize the interview into a productive encounter,"[10] others suggest that physicians need to allow a time to listen.[11]

Added time and a greater sense of partnership with the physician lead patients to feel more involved in the decision-making process. Cooper-Patrick et al[12] used a multi-item scale to measure patients' perceptions of the extent to which their primary care physician exhibited a participatory decision-making style (PDM) in their care, including involvement in treatment decisions and a sense of control and responsibility for their own care. In a survey of nearly 2000 adult patients, they found that women physicians regularly exhibited greater PDM in their care, and the level of PDM was strongly associated with patients' reported satisfaction with their care.

As summarized in an editorial from 2001 in this journal, compared with male physicians, "…female physicians engage in more of the communication behaviors generally valued by patients."[13] With women comprising more than 30% of practicing physicians and approximately half of medical students, the impact of women on the value of the physician-patient encounter can only be expected to improve. Women spend more time with their patients,[7,8] involve patients in the type of interaction most valued by patients, and experience higher levels of patient satisfaction with their care.[12] As a consequence, female physicians are able to see fewer patients per hour and may elect to spend fewer hours per week in clinical practice, often to

Mayo Clin Proc. ■ June 2017;92(6):855-857 ■ http://dx.doi.org/10.1016/j.mayocp.2017.04.002
www.mayoclinicproceedings.org

accommodate family responsibilities. Should we be concerned that as a consequence, women receive lower levels of financial compensation from Medicare Part B,[2] from insurers more generally,[14] and often from their work in academic medicine?[15,16]

As a physician who spent nearly a decade in solo rural practice, I can affirm that income is only one of the rewards of medical practice. Physicians may select their practice setting on the basis of a range of personal priorities. A survey of physicians of age less than 50 years found that male physicians rated practice income and long-term income potential as more important than women, whereas women rated time for family/personal life and flexible scheduling more important than men.[17] For many physicians, the value derived from the practice of medicine is measured in a number of ways, only one of which is monetary income.

Becoming a physician involves a process often referred to as "socialization"—a learning of and adapting to the social roles and expectations under which the medical profession functions within society. Gender differences to which we are socialized from an early age are an inevitable part of this medical socialization process and are not unique to our profession.[18]

The added quality women physicians bring to the physician-patient interaction adds substantial value to medical care. The persisting disparities women physicians experience in financial rewards from practice, whether from Medicare or from other sources of remuneration, need to be acknowledged and monitored over time to understand their source.[19] Medicare Part B pays the same amount per unit of service regardless of the physician's gender. The income disparities identified in the work of Mahr et al[2] are real, but they do not appear to reflect biased systems of payment. Rather, they appear to reflect the unique styles of practice and values women physicians bring to health care, based on the accommodation many woman make in order to balance practice responsibilities with home responsibilities while focusing time and attention on the process of care such that patients come away feeling heard, understood, and involved as a partner in their own care.

ACKNOWLEDGEMENTS

The author would like to thank Yvonne Maldonado, MD, and Magali Fassiotto, PhD, of the Office of Faculty Development and Diversity in the Stanford University School of Medicine for their helpful comments in preparing the submitted manuscript.

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