

EDITORIAL

Women transforming medicine: equity for better healthcare

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While women have been healers and caregivers throughout history, their formal contributions to medicine have faced systemic obstacles. Despite recent strides in female medical school enrollment, gender disparities persist in leadership, research, and career advancement.

Women have played pivotal roles in medicine since ancient Egypt and Greece where figures like Isis, Hygeia, and Panacea were revered (1, 2). Midwifery and home-based healthcare were primarily managed by women for centuries, though they were rarely recognized as professionals (2).

The mid-19th century witnessed a pivotal moment for women in medicine with the unlikely heroine, Elizabeth Blackwell. Despite her admittance to Geneva College's medical school in New York being initially intended as a prank, it became a watershed event. In 1849, Blackwell defied the odds and shattered barriers, becoming the first woman to receive a medical degree in the United States (3, 4). The late 19th century saw the American Medical Association reform medical schools, implementing more rigorous educational standards, extended training, and increased tuition costs. While well-intended, these changes had the unintended consequence of hindering **women's access to medical education**. As a result, women comprised a mere 6% of US physicians in 1910, a statistic that remained tragically stagnant for the following 50 years. However, a shift has been underway: 2017 marked a historic first, with women outnumbering men in medical school matriculation. This momentum continued, and in 2019, women became the majority of US medical students (4). While the number of women in healthcare is growing, their presence in leadership positions and research output lags behind. Globally, **women represent only around 47% of the healthcare workforce** compared to 72% for men, with a wider gap existing in some countries (5). This disparity extends to leadership roles, where the proportion of women as division and section chiefs has risen from 16% in 2003 to 29% in 2018, reflecting a concerningly slow annual increase of just 1% (5). Furthermore, women in leadership positions are often concentrated in areas perceived as less influential, such as student affairs or diversity initiatives, suggesting a lack of access to key decision-making and budgetary power.

Several factors hinder women's pursuit of academic careers, including age, medical specialty, academic considerations, financial concerns, and work-life balance challenges often centered around pregnancy, maternity, and childcare. Age discrimination is particularly insidious, with reports of **gender-based discrimination reaching 76% in early careers**, 56.7% in mid-career, and still

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a troubling 35.8% in late careers. For women physicians, age-based discrimination persists across all career stages. Disturbingly, among older women physicians, 11.9%-18% have experienced bullying or verbal abuse.

Despite achievements and seniority, women physicians continue to encounter limitations in their careers. They are less likely to receive recognition for their accomplishments, such as promotions, awards, or invitations to speak at conferences compared to male colleagues (6). This lack of recognition reflects a persistent **gender bias within the medical field**.

Furthermore, historical, and ongoing inequities exist in certain specialties. For instance, research shows a persistent underrepresentation of women in oncology subspecialties over a 26-year period (7). This underrepresentation highlights the need for a more inclusive environment across all medical disciplines. However, the contributions of women in medicine are undeniable. Pioneering figures like Dr. Florence Seibert, who isolated the tuberculosis protein molecule, and Dr. Virginia Apgar, who developed the lifesaving Apgar score, stand as testaments to the **impact of women in medical innovation**. A National Institutes of Health study reinforces this, demonstrating that well-represented women physicians achieve comparable productivity to their male counterparts (8-10). Despite these achievements, significant disparities remain in publication rates, editorial board positions, research funding opportunities, and overall career advancement for women physicians compared to men (8-10).

Women disproportionately adjust their careers and face compromises when navigating the demands of family and work. This is fueled by outdated gender roles, societal expectations of mothers, and the persistent idealization of women as primary homemakers. These pressures often force women into difficult choices. Prioritizing career invites societal judgment, while focusing on family can hinder career advancement and income, further exacerbating the **gender wage gap**.

The lack of support for work-life integration compounds these challenges, despite evidence of the positive impact women physicians have on patient

care. Studies suggest they often demonstrate better adherence to guidelines, prioritize preventative care, offer increased psychosocial support, engage in patient-centered communication, and devote more time to patients (11-13).

The consequences are severe: **gender bias, limited recognition, slower advancement, and pay inequity contribute to a lack of belonging and increase burnout risk in women physicians, a pattern supported by research** (14).

Urgent change is needed. Simply increasing women's representation in leadership isn't enough. We must fundamentally reshape the mental image of female physicians, dismantle biases, and create a **genuinely inclusive culture**. It also needs to fight stereotypes; is it really changed something compared to when a journalist asks, «Mrs. Curie, how do you live next to a genius?» assuming that her husband was in charge. The answer did not take long to come: «I do not know, ask my husband», replied Mrs. Curie, making a real revolution (15). While Curie's sharp retort serves as an early challenge to this notion, it is crucial to recognize that women still face underestimation and skepticism. Combating deeply ingrained stereotypes is essential to dismantle barriers and foster a scientific community that fully embraces talent regardless of gender.

In conclusion, addressing the persistent underrepresentation of women in leadership roles and tackling pervasive gender bias within **healthcare requires a multi-pronged approach**. Fostering an environment that empowers women physicians through mentorship and recognition programs is crucial. Furthermore, dismantling stereotypes and promoting a culture of inclusivity are essential steps towards attracting and retaining top female talent. Ultimately, achieving true gender parity within medicine holds the potential to enhance the quality of patient care, create a more diverse workforce, and unlock the full potential of all medical professionals. This necessitates a collaborative effort from institutions, male and female physicians alike, to break down existing barriers and build a truly inclusive future for the field. This is not just a fight for women in medicine; it is a fight for better healthcare for all.

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