

Sex- and gender-specific medicine: why it's a man's business too

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Summary

Sex- and gender-specific medicine must expand to include the health disparities affecting men, who face distinct and under-researched health disparities just as women do in some medical fields. Despite its broad relevance, the field is still primarily led by women, which may inadvertently limit male engagement and distort its scope. Men should join women in actively shaping healthcare into a more inclusive and intersectional system that benefits all.

Introduction

Sex and gender differences in medical research and practice are increasingly recognised as an essential aspect of health outcomes and care, rendering sex- and gender-specific medicine an important cross-sectional area in most medical disciplines. However, despite its clear relevance for male patients and practitioners, this field is chiefly perceived as “women’s health”, promoted and practised in large part by female professionals. Here, employing examples from different clinical areas, we articulate the relevance of sex- and gender-specific medicine to optimising treatment and diagnostics for male patients. In addition, we explore why male practitioners engage less in the field, which can in turn lead to less favourable outcomes for patients. We thus conclude by underlining the need for men to actively engage in sex- and gender-specific medicine, both as research subjects and as healthcare professionals.

Men as research subjects

Over the past three decades, the influence of sex and gender on health, disease, and healthcare has gained significant recognition alongside other social determinants such as ethnicity and education [1]. While sex pertains to biological characteristics, gender encompasses sociocultural attitudes, behaviours, and identities [2]. “Gender medicine” is often used as an umbrella term, covering both concepts [3]. As an emerging medical field, it dates back to the women’s health movement of the 20th century, which brought attention to disparities in women’s health and shed light on paternalistic and oppressive practices within healthcare [4]. While inequities disfavouring women persist despite increased efforts to address these issues, it is essential to recognise that sex- and gender-specific medicine

extends beyond women’s health. Though less obvious and less discussed both in mainstream media and medical research, men’s health issues are just as underrepresented and underresearched in certain medical fields, resulting in lower quality of care and worse health outcomes.

For example, historically, men were believed to be less likely than women to suffer from depression [5]. This misconception can be traced back to antiquity, where the concept of hysteria positioned mental health disorders as predominantly female, as they were thought to arise from the female reproductive system. Such ideas persisted well into the late 20th century [6]. Understanding such historical biases is imperative when interpreting modern epidemiological studies, which still report a higher prevalence of depression in women [7]. Accordingly, there is growing evidence suggesting a significant underdiagnosis of depression in men, who often present a distinct and less recognised symptom profile characterised by externalising behaviours not commonly associated with depression, such as anger, substance abuse, and risky behaviour [8]. As men are more reluctant to seek psychotherapy [9], it is now assumed that, due to a significant hidden male population, the true prevalence of male depression is underestimated. As a consequence, they are underrepresented in depression research, and current therapeutic approaches are better tailored to women [10].

While this example of depression in psychiatry clearly illustrates the importance of considering both gender and biological sex to explain specific effects, there are also cases where biological differences – and thus sex – play a significant role. This can be illustrated through an example from rheumatology, a field with many diseases exhibiting a female predominance. For instance, systemic lupus erythematosus (SLE) has a female-to-male ratio of 9:1 [11]. Yet, male patients with SLE are at a significantly higher risk of severe disease activity characterised by more serious renal involvement and polyserositis [12]. Additionally, a large meta-analysis revealed a higher mortality rate of male SLE patients compared to female patients [13]. Similar sex differences have also been observed in other rheumatologic diseases [14]. Thus, in rheumatology, more research on male patients is required to improve men’s poorer health outcomes.

When discussing how we approach men – and indeed all individuals – as research subjects and patients in sex- and

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gender-specific medicine, one must recognise that while symptoms and risk profiles can in some cases pertain mainly to one sex or gender, assigning them to sex or gender categories in this way can lead to oversimplification and even misinterpretation of disease patterns. In cardiovascular disease, for example, it is commonly believed that female-specific risk factors require special attention due to their so-called “atypical” nature [15]. Yet, cardiovascular disease is not only more prevalent in men but also tends to affect them about 10 years earlier in life than women [16]. This pattern is mainly driven by the protective effect of both genes and female sex hormones, which lead to an alteration of cardiometabolic risk in women [17]. Non-traditional cardiovascular risk factors, such as mental health disorders and emotional stress, are often primarily associated with women [15]. However, these risk factors are significant for disease outcome and therapy in all individuals and should, therefore, be equally considered and assessed in male patients [18, 19].

Furthermore, several male-specific factors, such as prostate cancer treatment involving androgen deprivation [20] and the presence of erectile dysfunction [21], have been linked to increased cardiovascular risk but given little consideration. As another example, just as women experience poorer health outcomes due to underrepresentation and limited data on ischemic heart disease, men face similar challenges in pulmonary arterial hypertension. Accordingly, pulmonary arterial hypertension affects fewer men compared with women, leading to limited data availability of male patients, and is associated with higher mortality in men [22].

As demonstrated by these examples from psychiatry, rheumatology, and cardiology, the interplay between sex and gender is complex, influencing disease presentation, pathophysiological mechanisms, and outcomes in both men and women.

Men as stakeholders and providers in healthcare

Historically, sex- and gender-specific medicine, which emerged alongside the women’s health movement, has largely excluded men from discussions on topics such as reproductive rights, maternal health, and childbirth. Even today, it is both understandable and exemplary for women to advocate for progress in this field. However, such activism often encourages greater participation by women than men, perpetuating a cycle in which men feel increasingly disconnected from the movement and the perception of the discipline is further distorted [23]. This has even extended to the health governance level, as displayed by the WHO report on the social determinants of health in 2008 [25], which drew criticism for inappropriately equating “gender and health” with “women’s health” [26].

The historical context of the women’s health movement is also key to understanding why men are underrepresented as stakeholders in sex- and gender-specific medicine. Men in leadership positions, in particular, have displayed relatively little interest in addressing sex- and gender-related inequalities in medical research and practice [24]. In fact, female authors in medical research were shown to be more likely to discuss sex and gender in publications than male authors [24]. Societal expectations around masculinity

may discourage men from advocating for sex and gender equity in healthcare, as doing so might risk their social status. Traditional gender roles further contribute to this hesitation. Furthermore, disclosing male privilege may be perceived as problematic among peers [32]. Even though the sex ratio at the beginning of clinical careers is almost balanced, with a slightly higher proportion of women, this changes significantly as careers progress. Leadership positions, whether in clinical practice, research, or education, are still predominantly held by men. The same pattern is observed in committees of professional societies responsible for formulating guidelines that influence clinical practice and research [33]. Consequently, women, who are already more engaged in sex- and gender-specific medicine, are less likely to occupy the positions needed to raise broad awareness. Men in leadership positions, therefore, must advocate for the topic and emphasise its importance for the formulation of clinical practice guidelines, medical training programs, and medical school curricula.

Healthcare also encompasses aspects of sex and gender that are directly linked to quality of care. For instance, some studies indicate that patient outcomes may vary depending on whether the physician is a man or a woman. A study by Wallis et al. described that female surgeons were associated with lower rates of adverse postoperative outcomes than male surgeons [27]. Similarly, Dahrouge et al. observed in a cohort study of over 4,000 primary care physicians that patients benefited more from the care of female physicians [28]. While these study results may not apply to all disciplines, they suggest that sex- and gender-related factors could significantly influence these disparities. The reasons are challenging to assess, given that randomised studies are limited in their blinding and, in some cases, cannot be conducted for ethical reasons [29]. However, there is some evidence of female physicians being more likely to adhere to evidence-based practices and performing better on standardised examinations compared with men [30]. Furthermore, women generally communicate in a more patient-focused manner and allocate more time to each visit on patient rounds [31].

Conclusion

Sex and gender differences in medicine and healthcare are important, and the need to address them is evident. The presented examples have showcased that sex- and gender-specific medicine is not to be equated with women’s health and that the field is equally important for men’s health. We additionally outlined that the reluctance of male healthcare workers and researchers to engage in the field is multifaceted. For sex- and gender-specific medicine in general, the goal may not necessarily be to find the causes of current societal challenges but to focus on concrete solutions for optimising medicine as we know it. Men working in various healthcare sectors, particularly those in key positions, are called to action to formulate guidelines that account for sex- and gender-specific aspects of diseases and to advocate for their integration as a standard in scientific practice, clinical care, medical education, and training. Moreover, increased research funding, active support for this field, and the widespread recognition that it addresses more than just women’s health are essential. Men’s role is

vital in achieving a more equitable and comprehensive approach to healthcare.

Potential competing interests

All authors have completed and submitted the International Committee of Medical Journal Editors form for disclosure of potential conflicts of interest. No potential conflict of interest related to the content of this manuscript was disclosed.

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