

# Increasing medical researcher gender diversity found to increase gender related factors in results

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(Phys.org)—A small team of researchers at Stanford University has found a link between gender diversity in research efforts and gender and sex-related factors in the results that are found. In their paper published in the journal *Nature Human Behavior*, the team describes comparing research papers co-authored by female researchers with outcomes and found differences in the results.

Over the past several decades, medical [researchers](#) have found that there are a lot more differences between the sexes than reproduction. Thus, males and females quite often experience different medical problems, which in turn require different types of treatments. But, as the researchers with this new effort note, the extent to which medical research includes different outcomes for males versus females is still not taken into account as often as it should be, particularly when the researchers are mostly or all male.

In analyzing approximately 1.5 million medical [research papers](#) published during the years 2008 to 2015, they found that if a female researcher was listed as the first (indicating she was a major contributor to the research) or last author (indicating that she was the study lead), then the likelihood of the research including results for both males and females was much higher.

These figures, the researchers point out, suggest that [gender diversity](#) is an important factor in medical research efforts. It is not a small point, as they note—of the 10 drugs withdrawn from use back in 2001, eight were found to pose a greater risk for [female patients](#). Women are also more likely to die from cardiovascular disease than men, they note, because female patients are so seldom seen in clinical studies for the disease. And it is not all skewed against women—osteoporosis, they point out, often goes undiagnosed and untreated in men simply because doctors are trained to look for it in women.

The group also highlights the fact that in [medical research](#), gender and sex categorizations are not the same thing. Sex, they note, is a biological characteristic, whereas [gender](#) involves social behaviors and attitudes. Both must be accounted for when conducting research to ensure that all possible outcomes are found.

**More information:** Mathias Wullum Nielsen et al. One and a half

million medical papers reveal a link between author gender and attention to gender and sex analysis, *Nature Human Behaviour* (2017). [DOI: 10.1038/s41562-017-0235-x](https://doi.org/10.1038/s41562-017-0235-x)

## **Abstract**

Gender and sex analysis is increasingly recognized as a key factor in creating better medical research and health care. Using a sample of more than 1.5 million medical research papers, our study examined the potential link between women's participation in medical science and attention to gender-related and sex-related factors in disease-specific research. Adjusting for variations across countries, disease topics and medical research areas, we compared the participation of women authors in studies that do and do not involve gender and sex analysis. Overall, our results show a robust positive correlation between women's authorship and the likelihood of a study including gender and sex analysis. These findings corroborate discussions of how women's participation in medical science links to research outcomes, and show the mutual benefits of promoting both the scientific advancement of women and the integration of gender and sex analysis into medical research.

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