

# Lack of women as research subjects connected to lack of women as researchers

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The underrepresentation of female research subjects has been documented from clinical trials down to sources for cell cultures. Now, researchers out of Marquette University in Milwaukee have found that in exercise research, this inequity correlates with the gender of the researchers conducting the study. The research team presented their work at the [American Physiology Summit](#), held in Long Beach, California, April 20–23.

The dearth of women in research studies has led to gaps in our understanding of how interventions will affect women at the clinical trial stage. Often, a better understanding of how treatments affect the [female population](#) doesn't occur until after they are introduced to the wider public. One high-profile example of this gap came in 2013 when the U.S. Food and Drug Administration (FDA) called for the dosage of Ambien and similar insomnia medications to be cut in half for women because researchers found the active ingredient remained in their bloodstream much longer than had been assumed. The medications had been approved by the FDA at a time when women of childbearing age were discouraged from participating in [clinical studies](#).

In the current study, the team analyzed 971 original research articles that reported findings from [human studies](#) in three journals prominent in the field of exercise physiology: *Journal of Applied Physiology, Medicine and Science in Sports and Exercise* and the *British Journal of Sports Medicine*. The researchers looked at research published in 1991 and in 2021.

In 1991, 51% of papers were authored by all-male teams—a percentage that declined to 18% in 2021. All female-research teams also declined,

from 1.8% in 1991 to 1.1% in 2021. While the number of women participating in exercise studies increased from 1991, in 2021 women still only made up one-third of participants per study.

In both 1991 and 2021, the number of female study participants was lower when the last author of the study—usually the head of the lab conducting the study—was a man. In contrast, when 2021 studies had a woman as the last author, "they include equal numbers of men and women as participants, which is reflective of the population," Jessica Linde, lead author of the study, said.

The correlation between authorship gender and participant gender grew stronger in 2021. The correlation did not stop with authorship; the team also found that more women in other [leadership roles](#) such as editorial board members also correlated to greater gender parity of research subjects in published findings.

The research team concludes that "the low representation of women as participants in [exercise science](#) and physiology research could be resolved by encouraging authors who are men to research equitable numbers of each gender."

Provided by American Physiological Society

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