

Let's End Gender Bias in Medical Research

by MARCIA J. WEISS

THE ISSUE: There is a lack of gender equity in medical research, both in clinical trials and clinical research. Current law does not require medical researchers to ensure that both sexes are studied in the basic research that leads to human clinical trials. Experts say that an existing bias toward using male lab animals, tissue and cells can lead to flawed findings. Researchers at Brigham and Women's Hospital in Boston summarize the issue as follows: "Medical research that is either sex- or gender-neutral or skewed to male physiology puts women at risk for missed opportunities for prevention, incorrect diagnoses, misinformed treatments, sickness and even death."

The lack of gender equity is especially problematic when looking at heart disease, which is the number one killer of women. Only 35 percent of participants in heart-related studies are women, even though heart disease kills more women than men. When women have a heart attack, their presenting symptoms differ from those of men. A better understanding of how that disease and others affect men and women differently will allow treatments to be tailored for both sexes.

Sex differences in health and disease are underappreciated, resulting in our not getting accurate data from research findings. Another example of gender differences involves the development of osteoporosis. Men develop the disease at older ages than women and lose bone mass differently than women. Older men with a hip fracture are three to four times more likely to die within a year than women with the same condition.

Even the effect of tobacco use differs between the sexes. Women have greater difficulty quitting and are more susceptible to tobacco-related diseases, yet they are not routinely included in research data. Lung cancer kills more women each year than breast, ovarian and uterine cancers combined.

A woman's overall risk of developing Alzheimer's disease is almost twice that of a man's. It is felt that this is because women live longer and female hormones play a role. A segment on CBS's "60 Minutes" in 2014 focused on the differences in medical research and explored the consequences, saying that women have "pesky hormones." Many researchers avoid studying women of

childbearing age due to their monthly hormone fluctuations as well as concerns about pregnancy and safety to unborn children.

Likewise, dosages of commonly prescribed medications such as the sleeping pill Zolpidem Tartrate (Ambien) should be adjusted because women metabolize the drug differently than men and also eliminate its active ingredient more slowly than men. Without adjusting the dosage, the drug may be strong enough to impair a person's alertness the next morning. In 2014, the Food and Drug Administration (FDA) ordered drug manufacturers to lower the recommended dosages of certain sleep medications. Eight of the ten drugs most recently withdrawn from the market had higher adverse effects on women. The old-school view of women's health as "bikini medicine" (i.e., that anything covered by a bikini is women's health) should be discarded as antiquated.

NEW LEGISLATION: U.S. Representatives Jim Cooper (D-Tenn.) and Cynthia Loomis (R-Wyo.) introduced a bipartisan bill called the Research for All Act that would bring gender equality to essential aspects of medical research. It would require inclusion and separate analysis of both male and female animals, tissues and cells in basic research conducted and funded by the National Institutes of Health (NIH). The Act would also require thorough research to ensure safe and effective medicines for both men and women. This legislation is supported by numerous organizations, including the American Heart Association, Association of American Medical Colleges, National Center for Health Research, National Women's Health Network, NOW and the Society of Women's Health Research, among others.

TAKE ACTION! Encourage your legislators to support the Health for All Act so that the inequities in biomedical research that impact the health of men and women can be corrected.

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