

Violence and women's health

Last month, the Association of American Universities' Campus Climate Survey provided a disturbing picture of the extent of sexual assault on campuses in the United States. Almost a quarter of female graduates surveyed from 27 institutions indicated having experienced sexual assault during their undergraduate period. Distressingly, violence on campuses is part of a larger epidemic of sexual violence in the United States, making it a major women's issue. The widespread prevalence of exposure to violence and its immediate harm and long-term health consequences argue for greater efforts in both research and treatment.

It is estimated that a third of U.S. women will be assaulted at some point in their lives, and one in four will experience intimate partner violence. Women appear to suffer disproportionate long-term effects, showing increases of 80% in stroke and 70% in heart disease, asthma, and alcohol abuse.* Males and females differ both in the types of violence they are likely to encounter and in their responses, including the capacity to extinguish fear responses. As a result, women are more likely to develop post-traumatic stress disorder.†

Given gender differences in exposure, vulnerability, and response, strategies for gender-specific research and intervention spanning science, public health, and health care delivery are needed. Fortunately, efforts to identify and treat women's exposure to violence are increasing. Under the Affordable Care Act, screening and counseling for exposure to intimate partner violence and domestic violence is reimbursable for women from adolescence to age 65. In 2014, an Institute of Medicine committee on core social and behavioral information for electronic health records recommended a four-item screen assessing physical, sexual, and emotional abuse for reproductive-age women. The health care provider Kaiser-Permanente has been screening for intimate partner violence for over a decade. During this time, detection rates for women in-

creased 10-fold, awareness of this type of violence grew among health plan members and clinicians, and patients identified through screening were connected to mental health, crisis, and advocacy services. A "Trauma-Informed Care" approach to treatment that acknowledges gender-specific health effects of violence and promotes interprofessional collaboration is being implemented in several U.S. health care institutions. It is promising, but not yet standardized or broadly evaluated.



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Silos within and across science, public health, and health care systems hamper our understanding of the determinants and consequences of violence. Research that informs primary prevention of the occurrence of violence, and secondary prevention of chronic diseases after exposure, must encompass biological, behavioral, and social determinants. Effective interventions need to integrate public health's expertise in surveillance and community triggers of violence with screening and treatment of individuals in the context of health care. The studies, ranging from basic research to clinical and community

intervention trials, will need to be adequately powered and include enough males and females to enable stratified analysis that can determine common and unique dynamics and needs of males and females.

The health of women is a major determinant of the health of communities. Women constitute over 50% percent of the population, and their health differentially affects the health and well-being of the next generation. An integrated research agenda is justified by the number and range of people affected by violence and its costs to individuals and to society. If a gene were identified that had the equivalent population penetrance and impact, few would question the need for substantial investment in understanding its mechanism of action and developing ways to avert the resulting health problems. We should do the same for violence.

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*M. C. Black, M. J. Breiding, *Morb. Mortal. Wkly. Rep.* **57**, 113 (2008).

†National Comorbidity Survey, NCS-R Appendix Tables 1 and 2; available at www.hcp.med.harvard.edu/ncs.