dendritic (spine) pathology and to begin to reveal the biochemical pathways that underlie it.

AMANDA J. LAW, PH.D.
CYNTHIA SHANNON WEICKERT, PH.D.
THOMAS M. HYDE, M.D., PH.D.
JOEL E. KLEINMAN, M.D., PH.D.
PAUL J. HARRISON, D.M., F.R.C.PSYCH.
Oxford, U.K.

Physician Suicide and Drug Abuse

TO THE EDITOR: Physician suicide rates and suggestions for future studies were nicely reviewed by Eva S. Schernhammer, M.D., Dr.P.H., and Graham A. Colditz, M.D., D.P.H. (1). However, they might consider further evaluation of the "risk factors relating to the working environment" (p. 2300). We have reported on outcomes of impaired physicians for nearly 25 years and have followed all impaired Florida physicians since 1995 (2, 3). Physician drug abuse has been linked to suicide (4, 5). We suggested that not all physician specialties are equally affected by drug abuse and dependence. Similarly, suicide may affect one medical specialty more than another. We have suggested workplace evaluations, starting with a history of drug exposure in the operating and emergency rooms and intensive care units. Anesthesiologists are significantly overrepresented among Florida physicians with substance use disorders. They represent only 5.6% of the total licensed physicians but almost 25% of the physicians with substance use disorders. Access to drugs of abuse has been the major theory advanced to explain this. However, we have proposed that unintended second-hand environmental exposure puts anesthesiologists at increased risk (6). We also recently demonstrated the presence of propofol and fentanyl in operating room air after intravenous administration (7). Secondhand exposure is a fact in some medical workplaces. It was not surprising that anesthesiologists and other physicians exposed to fentanyl in the workplace represented 90% of the fentanyl abusers in Florida. Studies in progress include sampling anesthesiologists' blood during work in cardiovascular surgery, an environment where high doses of fentanyl are routinely used. Environmental exposure may explain the high rates of addiction among anesthesiologists and why recovery for anesthesiologists often necessitates giving up their work in operating rooms and even changing medical specialties. Prevention of physician opioid abuse and dependence appears to be linked to identifying sources of secondhand exposure and preventing exposure from occurring or by minimizing exposure, as was done with nitrous oxide. Environmental exposure may also prove to be an important factor in suicide attempts, relapses, and prevention. We would strongly suggest that new and important data from the analysis of Drs. Schernhammer and Colditz be expanded to include medical subspecialty and secondhand exposure.

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MARK S. GOLD, M.D.
KIMBERLY FROST-PINEDA, M.P.H.
RICHARD J. MELKER, M.D., PH.D.
Gainesville, Fla.

Dr. Schernhammer Replies

TO THE EDITOR: My associates and I appreciate the additional background information conveyed by Dr. Gold and colleagues. Although presenting data on physician suicide rates by medical specialty was beyond the scope of our analysis, we undoubtedly welcome their invitation for more research.

Generally, men tend to successfully commit suicide more often than women, whereas suicide *attempts* among women are higher than those of men. It is possible, however, that women physicians more successfully commit suicide than do women outside of the medical profession. Among U.S. medical students, the observed suicide rate of female students equaled that of the male students (although they were still three to four times higher than those of their age mates), indicating a relative scarcity of attempted suicides in that profession (1).

That access to drugs can support higher suicide rates has long been shown: for example, in Australia, an increase in suicides by women coincided with the implementation of a law that facilitated access to barbiturates (2). Therefore, it appears likely that higher suicide rates among physicians, who tend to prefer methods that are typical for their profession (3), may be coupled with both their easier access to drugs, as well as their better know-how concerning the successful use of such methods. The interesting proposal by Dr. Gold et al. of unintended secondhand environmental exposure to drugs as a risk factor for drug addiction and possibly suicide among anesthesiologists adds another layer of complexity and warrants further investigation.

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EVA SCHERNHAMMER, M.D., DR.P.H.
Boston, Mass.