BEHAVIOR

Doctors as psychiatric patients

Physicians certainly are not immune to illness, be it physical or mental. Studies conducted during the past few years have documented emotional illness among doctors, particularly among psychiatrists. Now, in a study of 100 physician inpatients at a private psychiatric hospital, psychiatrist Robert E. Jones of Jefferson Medical College in Philadelphia has assessed the predominant types of mental illness and various characteristics of the doctors.

In the October AMERICAN JOURNAL OF PSYCHIATRY, Jones reports that the physicians were more likely to have diagnoses of affective disorders—depressive neuroses, manic depression, melancholia or adjustment problems—and drug abuse problems than was the general hospital population. The peak susceptibility among physicians occurred in their late 40s.

According to the case histories, many of the doctors were driven to hospitalization by "their drive for accomplishment and achievement," Jones says. Descriptions of the patients included terms such as "perfectionist," "achiever" and "has grandiose ideas about his practice." "One general practitioner had not taken a vacation in 15 years!" reports Jones.

General practitioners and psychiatrists were "overrepresented," according to the study, and female physicians were almost four times more vulnerable to suicide than male physicians.

Where have you gone, Peggy Wood?

Stereotypes seem to be falling by the wayside these days, what with everybody and his grandmother coming out of the closet. And now it seems that it's time for grandmothers themselves to shed the image of gray-haired, bespectacled old ladies who chomp on their gums, knit and spout pearls of wisdom to their grandchildren.

In a survey of 125 grandmothers, University of Wisconsin researcher Joan F. Robertson reports most of the women became grandmothers in their 40s or 50s and rarely provide advice or take the youngsters to church. "These younger grandmothers say their greatest satisfactions in life come from interests outside the family, not from grandchildren," Robertson says.

Nevertheless, today's grandmother gets great joy from her role, and the same seems to hold true for the grandchildren. Ninety percent of the young adult grandchildren surveyed lauded their grandparents and said grandmothers were neither too old fashioned nor boring.

Legal teen drinking: No stampede

Lowering the legal drinking age has not significantly increased the consumption of hard liquor, according to a study in the September JOURNAL OF STUDIES ON ALCOHOL. The conclusion was based on analyses of total sales or shipments of liquor in each of the 25 states that have reduced the drinking age limit. Statistics were compared for the 12 months preceding and following the enactment of the change.

However, the analyses do not include purchases of wine and beer, acknowledge researchers Steve Barsby and Garry Marshall. In addition, the study was conducted for the Distilled Spirits Council of the United States, which represents some of the country's major distillers. But the data were evaluated by independent statisticians who determined that the study was well-performed, says T. G. Coffey of the Rutgers Center of Alcohol Studies, which publishes the journal.

Since statistics were not available for purchases by specific age groups, the researchers keyed their study to "sudden changes in . . . aggregate statistics." The comparison revealed a slight increase in consumption following enactment of the law, "but one that was not statistically significant."

BIOMEDICINE

Childbirth medication: The good side

Although natural childbirth may spare infants possibly harmful drug exposure, pain relief during labor may prevent maternal stresses that can harm newborns, according to two speakers at the annual meeting of the American Society of Anesthesiologists in New Orleans this week.

"Every painful contraction of the womb leads to an increase in the work of the heart, the blood pressure and the body's need for oxygen," declared Gertie F. Marx of Albert Einstein College of Medicine. "Labor is also associated with a tendency to overbreathing and to a heightened output of hormones from the adrenal gland. These responses not only tax the mother's strength but also may deprive the baby of oxygen and needed nutrients." But well-chosen pain relief, she attested, will alleviate or even abolish these stressful reactions and will often increase the strength of contractions and improve the progress of labor.

Hisayo O. Morishima of Columbia College of Physicians and Surgeons reported a study in which electrical monitoring devices were implanted in baboons in labor and in their fetuses. The baboons were then frightened and given a painful stimulus. These stresses resulted in increased maternal blood pressure and pulse, stronger and more frequent uterine contractions and a slowing of fetal blood, heartbeat and breathing. When the stressors were stopped, mothers and fetuses returned to normal. "Our results indicate that in certain patients, judicious sedation or pain relief should be given to alleviate their stresses, not only to be humane to the mother but also as therapy for the fetus," Morishima concludes.

Anesthetics and enkephalins

Even though anesthetics are given to patients thousands of times a day throughout the United States, their method of action has remained largely elusive. It is now reported that nitrous oxide, a commonly used gaseous anesthetic, appears to produce pain relief by acting on pain-relieving chemicals in the brain called enkephalins (SN: 7/2/77, p.6).

A study reported at the annual meeting of the American Society of Anesthesiologists this week by A. Donald Finck of Columbia College of Physicians and Surgeons and his coworkers has shown that the lack of pain produced by nitrous oxide can be partially reversed by a drug that also reverses the effects of narcotics and, even more intriguing, that reverses the pain-relieving effects of the enkephalins. Thus nitrous oxide, like narcotics, appears to trigger analgesia by somehow activating the enkephalins.

Auto-antibodies as house cleaners

Until recently, antibodies made by the body against the body were thought to be the mistakenly produced noxious source of auto-immune diseases. However, there is increasing evidence that the body may also make auto-antibodies for a constructive rather than a destructive purpose.

For instance, natural auto-antibodies are known to react with certain brain chemicals, thymus cells and carbohydrates in the blood without any apparently harmful result. And now auto-antibodies against tubulin have also been found in healthy, non-immunized animals and humans, say E. Karsenti and his colleagues at the Pasteur Institut in Paris. Tubulin is a kind of protein that comprises microtubules—tiny structures that play a crucial role during cell division, neuronal growth and flagella development.

Why does the body intentionally make auto-antibodies? Possibly to mop off an excess of self-antigens or to help control cell differentiation and growth, the Parisian investigators speculate in the September PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES.