

Smoke-filled rooms: Harmful to health

By papal voting standards, there was nothing but white smoke emanating last week from the chamber of the House Subcommittee on Tobacco — signaling a nearly unanimous agreement on the benignity of cigarette smoke to nonsmokers. Eight doctorate-level “experts” and one pollster testified that public smoking should not be banned on the basis of scientific evidence.

University of Pittsburgh pathologist Edwin Fisher went so far as to identify a new American “disease”: “Smoke-A-Phobia.” Along with “Cancer-A-Phobia,” this condition is “manufactured by fear and anxiety ... transmitted by so-called consumer advocates, certain books ... and news headlines,” he suggests. Fisher and others contend there are no major study results to support such a fear.

However, recent reports at the American Psychological Association meeting and in the July 6 *NEW ENGLAND JOURNAL OF MEDICINE* might cast doubt on such claims. At the recent APA meeting in Toronto, DePaul University's John W. Jones reported that “studying in a smoke-filled room caused significant increases in anxiety and fatigue” among college student volunteers in the study. “Exposure to smoke also caused significant decreases in feelings of arousal,” Jones said. The psychologist exposed eight students — each in an individual study room — to a 20-minute period in a smoke-filled room and another 20-minute period in a room with “clean, ambient air.” The smokiness was achieved by burning 10 Camel cigarettes for about 400 seconds — yielding an environment with 10 times more carbon monoxide, nearly twice as much particulate matter and 190 percent more relative smoke density than normal.

After both types of conditions, each subject completed the “Eight State Questionnaire,” which measures eight acute emotional states at that moment. “The prediction that exposure to secondary cigarette smoke would significantly increase feelings of anxiety was strongly supported,” Jones reports. “When exposed to smoke, the subjects described themselves as being more worried, tense, high strung, annoyed, emotionally upset and easily rattled than they did after exposure to clean, ambient air.”

The students also reported “heightened feelings of fatigue and, inversely, lower feelings of arousal.” This may have been due to the increased carbon monoxide levels found in the smoky environment, Jones suggests. “Carbon monoxide appears to have a depressive effect upon the central nervous system,” he says.

In the *NEW ENGLAND JOURNAL* article, researchers report that in 10 angina patients exposed to 15 cigarettes smoked within two hours in both ventilated and

unventilated rooms, the angina condition was “aggravated.” Following their exposure, the patients developed anginal pain considerably sooner after exercising and were able to exercise 22 percent less than they had been before being exposed to cigarette smoke, reports Wilbert S. Aronow of the Long Beach Veterans Administration Hospital and the University of California College of Medicine at Irvine.

The smoke also “increased their resting heart rate, systolic and diastolic blood pressure and venous carboxyhemoglobin and decreased their heart rate and systolic blood pressure at angina,” Aronow says. The changes were greatest to those exposed in an unventilated room. Most of the effects, he says, were “presumably due to absorption of nicotine,” and Aronow suggests that the oxides of nitrogen inhaled in tobacco smoke may interfere with myocardial oxygen delivery.

Emotionally, a person exposed to enough unwanted cigarette smoke might develop a “conditioned emotional response, such as anxiety” to even the sight of a cigarette or the sound of a striking match, says Jones. “Exposure to secondary cigarette smoke can cause changes in a nonsmoker's mood states that are detrimental to performance on a variety of tasks,” Jones says. “A call for nonsmoking or good ventilation in all situations where a nonsmoker's moods could be adversely affected is needed. The scientific techniques for reducing public smoking exist [primarily through behavioral means, he notes]; society just needs to employ this knowledge.” □

Working wives: Driven to drink?

Male alcoholics still outnumber their female counterparts by four to one, but alcohol consumption by women undeniably has been increasing for the past few years. It is currently estimated that more than two million women suffer from either alcoholism or lesser “drinking problems”; and recent surveys at the high school level indicate that younger girls are drinking about as much as boys the same age (SN: 4/30/77, p. 277).

Heavy drinking among adult women — as in men — is frequently a product of a less than desirable socioeconomic condition. “Women who are divorced or unemployed, regardless of other statuses (except being widowed) have the highest rates of both problem drinking and heavier drinking,” reports Paula B. Johnson in a study performed for the University of California at Los Angeles department of psychology and the Rand Corp. Johnson presented the report — an analysis of data

from a 1975 nationwide survey of drinking practices among U.S. adult males and females — at the recent meeting of the American Psychological Association.

Apart from that, however, the analysis yielded a surprising finding relating alcohol use to sex roles: “Married women who are employed have significantly higher rates of both problem and heavier drinking than either single working women or housewives,” Johnson says. “No similar relationship occurs for men, raising the distinct possibility that this type of nontraditional role for women leads to an increased risk of alcoholism.”

Johnson first suspected that low socioeconomic status might account for such a phenomenon. But, to the contrary, she found “to our surprise, the relationship is even stronger for women at middle and higher SES levels, while it disappears for women at the lowest SES levels.” In any case, she suggests the drinking problem among working, married women might be due to one of two causes:

- “The dual demands of being both wife and employee leads to role conflict and psychological stress.”
- Women unaccustomed to working roles may simply be conforming to traditional male drinking norms that now encompass them.

If role conflict is the major cause, Johnson advocates preventive treatment “not only (to) help women to cope with these stresses, but help society define sex roles so that such stresses do not occur in the first place.” □

Sex and angry women

Numerous studies over the years have shown that certain types of erotic literature, pictures and films can increase aggression in males. Generally more explicit sexual depictions tend to make men — already angered by experimenters — more angry and aggressive. At the same time, softer core erotic materials seem to soothe the hostility in angry males.

In one of the first such experiments involving females, Robert A. Baron of Purdue University tested 45 undergraduate women. The subjects were either angered (by unflattering personal evaluations from another student) or not angered and then exposed to varying degrees of erotic pictures of men and men and women, as well as to non-erotic pictures. Baron reported at the APA meeting that heightened sexual arousal does increase aggression in women, as well as men; and there is indication that it may take less to make women more angry than it does for men. As with males, however, mild erotic pictures appear to reduce aggression in angered women, he reports. Aggression was measured in the intensity and frequency of “shocks” they believed they were giving to the person who angered them, as well as by questionnaire. □