behavioral sciences

Post-abortion therapy

Abortion remains a controversial issue but several states have revised their abortion laws and the procedure is being performed regularly with few restrictions. In most of these states, however, psychiatric consultation is required prior to an abortion. The purpose is to provide an evaluation of the impact of an unwanted pregnancy on the patient's mental health. George M. Burnell, William A. Dworsky and Robert L. Harrington of the Kaiser Permanente Medical Center in Santa Clara, Calif., believe that such consultation should be extended beyond the surgical procedure.

They devised a group approach to post-abortion therapy that generates support and relief through sharing a mutual experience. Groups limited to five women met for one or two sessions, two weeks after hospitalization. Each group was led by a psychiatrist-gynecologist team. After seeing 250 such patients, the therapists conclude in the August American Journal of Psychiatry that the program was beneficial in helping patients to cope with guilt feelings and in clearing up areas of misinformation about sexual function and contraception. Post-abortion therapy, they say, "can make the total experience one of growth and maturation rather than one of destruction and regression."

The function of television

Television is often criticized as a cultural wasteland but still many viewers say watching television is a pleasurable, entertaining and educational experience. John P. Robinson of the University of Michigan's Institute for Social Research in Ann Arbor, Mich., has found that only 10 percent of a national sample spontaneously brought up information-seeking or education as a reason for watching television. Less than 20 percent listed a news or educational program as one of their favorites.

However, frequent television viewers were aware of certain weather forecasting principles that are applied in daily TV weathercasts. Such results, says Robinson, raise the possibility that television works to increase life knowledge at the expense of school knowledge. Instead of asking "what have you learned?" Robinson suggests asking, "has anything changed your way of looking at the world?"

Voluntary mental hospitalization

There is no such thing as voluntary mental hospitalization says Thomas S. Szasz of the Upstate Medical Center in Syracuse, N.Y. Continuing his crusade for the rights of those persons considered to be mentally ill, Szasz says in the Aug. 10 New England Journal of Medicine that voluntary mental hospitalization is an unacknowledged practice of medical fraud. Many patients, he says, are coerced into admitting themselves under the threat of commitment. In 44 states a voluntary mental patient may, despite his desire to leave, be held in an institution for periods ranging from 48 hours to 30 days while commitment papers are readied. The Supreme Court of Utah has even ruled "that a voluntary patient in the [mental] hospital is as much confined and has as little freedom as a mentally alert trusty in a jail or prison." Szasz concludes the time has come to re-examine the principles and practices of psychiatric hospitalization.

space sciences

Organisms survive Jovian-type atmosphere

One of the major concerns of exobiology within NASA has been the possibility of contaminating other planets with earth organisms. This possibility has led, in the past, to stringent and expensive sterilization procedures. Furthermore, some scientists have contended that the environments of most of the planets are too hostile for survival of terrestrial organisms.

To test this contention, Cyril Ponnamperuma and Peter Molton, formerly of the Ames Research Center and now of the University of Maryland, subjected some common terrestrial microorganisms for 24 hours to a simulated Jovian atmosphere. The organisms used were Escherichia coli B, Serratia marcescens, Aerobacter aerogenes and Bacillus subtilis. To simulate the Jovian atmosphere the experimenters used a mixture of hydrogen, helium, methane and ammonia at temperatures ranging from minus 196 degrees C. to 30 degrees C.

ranging from minus 196 degrees C. to 30 degrees C. In the July 28 NATURE they report that there was a significant survival of all organisms at all temperatures, excepting S. marcescens and E. coli at 20 and 30 degrees C. Based on these results, they believe there is a real possibility of the contamination of Jupiter by nonsterile spacecraft, provided that the planet can also permit growth of such contaminants.

Toward quieter jets

NASA and the Department of Transportation have a joint program aimed at tackling some of the environmental problems of aircraft—mainly exhaust emissions and noise. One line of attack is to modify the current JT3D and JT8D engines and nacelles that power the DC-8, DC-9, 707, 727 and 737 aircraft. According to NASA, studies show that modifying the engines will cost much less than replacing them with new designs.

Last week NASA awarded a contract to United Aircraft's Pratt & Whitney Aircraft Division for the design of such modifications to include the replacement of two-stage fans with one-stage fans of higher airflow. According to John F. Groeneweg of NASA headquarters, the refanning will reduce take-off noise of a 707, for example, from 113 decibels to 98 dB's. It will reduce the approach noise from the JT3D engine from 120 to 101 dB's. The JT8D engine of the 727 refanned should have a take-off noise reduction from the current 101 to 92 dB's and approach noise reduction of 110 to 96 dB's.

The Boeing Co. and McDonnell-Douglas' Douglas Aircraft Co. were also awarded contracts to study the problem of further suppressing noise.

An accommodation for women?

Space-flight experience of the first decade has been limited to an elite corps of supermen—largely pilots. But the space shuttle, NASA promises, will open up space flight to anyone—nonpilots, scientists, women and even politicians. Few observers believe this will happen in this decade.

But this month NASA made a move that surprised some doubters. The Manned Spacecraft Center issued a \$238,000 contract to Hamilton Standard Division of United Aircraft for design within 18 months of a prototype waste-collection system for the space shuttle. The contract calls for accommodations that are "earthlike" for both male and female.

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