

From our reporters at the annual meeting of the American Psychological Association in Washington

Scream at the rapist

"Get on the ground if that's where your assaulter wants you . . . act humble in his presence . . . offer yourself to him. Make sexual overtures . . ." That's part of the advice offered to women in *How to Say No to a Rapist*, a recent book by Frederick Storaska. But passivity may not be the best way to avoid rape. Frank J. Javorek of the Denver General Hospital analyzed 36 attempted rapes and 36 completed rapes to determine what factors differentiated attempted from completed rapes. The most important factors, in order of importance, were whether the victim screamed or cried out for help, and whether the victim tried to escape by running away. Next most important were the victim's neighborhood of residence and whether the victim was awake and alert at the time of the attack.

Of victims who both cried out and ran away, 86 percent escaped being raped. Of those who used one method of resistance, 68 percent escaped. Of those who did not use either method of resistance, only 20 percent escaped. "Attempts to talk the assailant out of pursuing the attack proved to be not only ineffective, but actually counterproductive," says Javorek. This does not mean, however, that if a woman gets raped it is her own fault. There are situations where screams would not be heard and where running is not possible. Of those who did resist, 32 percent were raped.

Mental health insurance: A rip-off?

National health insurance may be on the way, but it will not be born without a lot of screaming and pain. Some of the loudest screams will probably have to do with mental health coverage. Should it be included at all? If so, who should provide the services—psychiatrists, psychologists or both? In addition to issues of ethics and humanity, there is a potential gold mine involved, so these questions are not being taken lightly. As might be expected, these questions were raised at last week's meeting of the American Psychological Association. Proposed answers, however, were not all what would have been expected. George Albee, a past president of the APA, made it quite clear that he thinks inclusion of mental health care in a national health plan would result in a vast rip-off of the poor.

Albee made several points which ensure that debate on the issue will be hot. Historically psychoanalysis has been a treatment for the emotional problems of the affluent. Freud's first clients were middle- and upper-class neurotic women who, says Albee, "were undoubtedly suffering from the sexist repressive forces characteristic of industrializing societies." Psychoanalysis continues to be available primarily to the rich because it is prohibitively expensive. National health insurance would supposedly correct this problem and make such therapy available to all, but Bertram Brown, director of the National Institute of Mental Health, has noted that in one case where blue-collar auto workers were provided with psychiatric services by their union, they failed to make much use of the service. They resisted referral to a "shrink" and did not always understand the services available. Even if they had accepted the therapy, it may not have proved to be very helpful. The training and personality of most therapists, says Albee, make them particularly unqualified to provide one-to-one therapy for the poor and blue-collar class. Few therapists speak the language, share the values or understand the problems of the poor. As has been pointed out many times, psychotherapists prefer to work with people who have the YAVIS Syndrome (young, attractive, verbal, intelligent and successful), and psychotherapy

has been found to work most effectively with such people.

Geographical considerations must also be taken into account. Just five states claim the services of more than half of all the psychiatrists in the country. Few such services are available in the inner city or in rural areas. "But," says Albee, "because everyone would be paying the bill and only the affluent would have the kind of disturbances for which the treatment was appropriate, once again we see the injustice of everyone paying for help for the few."

These, however, are only practical considerations. To Albee, "The really fundamental question, ultimately, is whether persons with the kinds of problems dealt with in outpatient traditional psychotherapy are really *sick*, whether they truly have illnesses which should be covered by a health insurance plan. . . . Let it suffice for me to point out that there is a great deal of evidence to support the position that people have emotional problems in living that are produced by the problems inherent in an industrial civilization and that these problems should not be regarded as illnesses and should not be covered under a national health scheme. I would favor no coverage for any outpatient therapy except in cases of genuine organic illness."

Sex roles and relationships

Sexual mores and attitudes have undergone many changes in recent years, but have sex-role behaviors actually changed? A two-year study of 231 dating couples on four campuses in the Boston area has found that there is still a great deal of diversity among young couples with respect to patterns of power and decision-making, sexual behavior and many other aspects of their relationships. The study was conducted by Zick Rubin of Brandeis University, Letitia Anne Peplau of UCLA and Charles T. Hill of the University of Washington.

On two points there was almost complete agreement among the couples studied. Almost all of the men and women (96 percent) thought that they would eventually marry—whether to their current partners or to someone else. A large proportion of the students (85 percent) stated that they believed both dating partners should have equal power in the relationship. Their actual behaviors, however, did not always reflect this belief. When asked, "Who do you think has more of a say about what you and your partner do together?" only 49 percent of the women and 42 percent of the men felt both were equal. Two-thirds of the women and three-fourths of the men thought that the man had more of a say.

Radiating effects of beauty

Both beauty and intelligence are regarded as desirable and valuable social attributes, but when rated as commodities in the interpersonal marketplace, beauty drew more extensive positive responses.

A study conducted by Mary Lee Meiners of Georgia State University and John P. Sheposh of San Diego State University examined how a male might be evaluated on the basis of the beauty and intelligence of his partner. Forty male and forty female San Diego State University students viewed videotapes of a male and a female together. The female's attractiveness and intelligence varied from tape to tape. After the viewing, the male was evaluated by the students, who were told that the test dealt with their perceptions of people. For the attractiveness condition, the female's looks were enhanced by makeup and fashionable clothes. To simulate unattractiveness, the same

female wore ill-fitting clothes and a wig. Theatrical makeup was used to produce shadows under her eyes, skin blemishes and a thick nose. Occupational status (medical student or coffee-shop waitress) were used to indicate "intelligence."

Beauty seemed to gain the most extensive positive reactions from the subjects. The male with the attractive partner was said to have both positive external qualities (likeable, physically attractive, friendly) and internal qualities (talented, intelligent, self-confident). The male with the intelligent partner was rated as having only positive internal qualities, but not all the other things necessary to gain a beautiful partner.

Benefits of napping

Dozing off in the afternoon may seem a humble pastime, but the nap has earned its place in history by apparently allowing some famous people—including Edison and Churchill—to endure long periods of sustained effort with little sleep. What naps could or should do for the average person remains uncertain, but two studies raise intriguing possibilities.

Sleep researchers at the University of Pennsylvania discovered that nappers seem to have more voluntary control over the sleep process. These are the people who can fall asleep on trains and planes and are less likely to have insomnia during periods of stress. While nappers generally require more sleep than non-nappers, they apparently obtain it more efficiently and take less time to fall asleep at night. When asked how they feel after a nap, those people who nap regularly, even when they are not tired, reported the most benefits.

A study conducted at the Naval Health Research Center focused on the question of what happens when a regimen of forced napping, without regular sleep, is imposed for a couple of days. Researchers found that on a schedule of two hour's activity, followed by one hour's nap, subjects actually slept less than half the allotted time. Also, the pattern of sleep during the naps was fundamentally different than during the first hour of normal sleep with the time required to reach the deepest (REM) stage of sleep markedly reduced. Though the nappers showed some increased sleepiness and impairment of memory, they scored well on other performance tests, while subjects deprived of all sleep for the same period showed significant impairment on seven of eight tests.

Who is androgynous?

Some psychologists argue that in a world where more women are choosing to work and more men are feeling the pressure of the "rat race," new norms of masculinity and femininity need to be developed. The term given to the combination of both traits is "androgyny" (SN: 4/26/74, p. 274), and its advocates say that androgynous women are better prepared to face life outside the home, while androgynous men benefit from the softening effects of such interests as child-care.

One study, conducted by a team from the University of Kentucky, compared the sex-type characteristics of some Midwest high school students to their styles in dealing with other people. Androgynous students of both sexes tended to be "friendly-dominant" in their relationships, while masculine-typed students were "hostile-dominant" and feminine-typed students were "friendly-submissive." Students with low scores in both sex-types were "hostile-submissive." A survey of sports figures conducted by Mary E. Duquin of the University of Pittsburgh showed that professional sports attract androgynous women, but highly masculine-stereotyped men.

BIOMEDICINE

How smoking triggers heart disease

Slowly but surely, researchers are learning how smoking contributes to heart disease. Carbon monoxide in cigarette smoke, for example, is known to promote the development of hardening of the arteries and to decrease the delivery of oxygen to the heart. Nicotine has been shown to increase blood pressure, presumably by stimulating sympathetic nerves—those nerves of the involuntary nervous system that make the nerve transmitter norepinephrine.

Cigarettes' ability to trigger high blood pressure via sympathetic nerves has now been demonstrated more directly than ever before by Phillip E. Cryer and his team at Washington University School of Medicine. Using a recently developed radioactive tracer for neurotransmitters, they showed that norepinephrine rises in the bloodstream 10 minutes after people smoke.

A rise in blood pressure preceded a rise of norepinephrine in their blood, however. So it is probably norepinephrine released in heart and other tissues, rather than norepinephrine released into the bloodstream, that triggers high blood pressure, the researchers conclude in the Sept. 9 NEW ENGLAND JOURNAL OF MEDICINE.

DNA polymerase and aging

Although the cause of aging continues to be as elusive as Ponce de Leon's fountain of youth, researchers are at least pinpointing some of the possible contributors—a loss of DNA, a decrease in protein synthesis, a decline in the immune system, a decrease in hormones. Now one more is added by Stuart Linn and his colleagues at the National Institute for Medical Research in London—a failure of an enzyme that helps make DNA molecules.

DNA polymerase fails to incorporate the proper nucleotides into DNA in aging human cells, the researchers report in the August PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES. The general error theory of cellular aging, they explain, proposes that once errors in proteins or DNA begin to accumulate, there will be a progressive breakdown in information transfer between macromolecules, which will eventually upset a wide range of cellular components and in turn harm tissues, organs and systems in the body.

Immunizing mosquitoes against malaria

Until now, efforts to make a malaria vaccine have mostly focused on keeping the malarial parasite transmitted by a mosquito bite from infecting the human host. But making such a vaccine has proved difficult. Several scientists at the National Institute of Allergy and Infectious Diseases are taking another tack: immunizing mosquitoes against malaria-infected people in hopes of thwarting the transmission of malarial parasites to mosquitoes and back to people.

R.W. Gwadz found that the infectivity of malarious chickens to mosquitoes can be greatly reduced by prior vaccination with irradiated blood infected with a malaria parasite. Specifically, the vaccine reduced the development of malarial parasites in the mosquitoes by 95 to 98 percent. Then Richard Carter and David H. Chen made a vaccine of partially purified eggs of the malaria parasite. This vaccine reduces the infectivity of malarious chickens to mosquitoes by 99 percent below control levels.

The next step, Carter and Chen explain in the Sept. 2 NATURE, will be to show that such a vaccine can also block the transmission of parasites that cause human malaria.