

PSYCHIATRY

Patients Predict Behavior

BORROWING from the Armed Forces' "buddy-rating" techniques, a group of psychologists found that mental patients were as accurate as the psychiatric staff in predicting how their fellow patients would get along after leaving the hospital.

The three-year study, reported in the *Journal of Consulting Psychology* (June), was made at the Ann Arbor (Mich.) Veterans Administration Hospital.

Senior author of the report Dr. Julian J. Lasky told SCIENCE SERVICE the idea for the study came to him at Officer Candidate School in 1944. There he first saw the system in which men accurately rated leadership potential of their buddies.

The patients and the hospital staff were asked to predict whether within two years after discharge each patient would: 1. be hospitalized again; 2. work steadily; 3. have serious family trouble; and 4. enjoy good physical and mental health.

Both groups scored 70% accuracy. Reflecting the results of other studies, no patient was able to predict his own future adjustment. An unexpected result, however, was that staff people made their

poorest predictions in their own areas of specialization.

For example, social workers missed in predicting family adjustment. Job adjustments did not turn out as occupational therapists expected. Psychiatrists were off in rating job, family and health adjustment of their own patients. Aides and nurses failed in forecasting health adjustment. Dr. Lasky wondered if these predictions were inaccurate because people lose some of their objectivity when they are too involved in their specialties.

Dr. Lasky, now at the VA Central Neuropsychiatric Research Unit, Perry Point, Md., said mental patients, in certain ways, give each other treatment. A patient tells his friends things he will not reveal to the staff who often hear only what the patient thinks they want to hear.

"The patient may look dischargeable to the staff," he said, "but the other patients know otherwise."

Dr. Lasky believes these presently untapped pools of interpatient understanding and knowledge could lead to greatly improved treatment in the mental hospitals.

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BIOLOGY

Study Light Sensitivity

RADIATION can mean the difference between night and day to a king crab.

When a king crab is in the dark and is receiving an accumulated dose of radiation, his sensitivity toward a flash of light diminishes. However, if it can manage to amble out of the dark into a light area, its original sensitivity to light is restored when it again enters the dark, Dr. James O. Smith of the department of psychology, Florida State University, told SCIENCE SERVICE.

The king crab's sensitivity to a one-second flash of light in the dark dipped sharply when the radiation dose was anywhere below 25 roentgens.

It is possible, Dr. Smith speculated, that a human's visual sensitivity to light can be altered in a similar manner by a dose of radiation equal to that of a dental X-ray.

As the cumulative amount of radiation is increased by increments of 25 to a total of 200 roentgens, the crab's ability to respond to the flash of light continues to diminish at a lesser rate, Dr. Smith and William W. Dawson report in *Science* (June 19).

The diminished sensitivity persists long after the radiation has ceased as long as the crab is kept in the dark, the investigators report.

Since the natural sensitivity to light is restored when the crab is again adapted to a light area, it appears that the damage that occurs to the eyes by radiation doses of 200 roentgens or under is temporary.

Scientists have previously shown that doses between 1,700 and 10,000 roentgens will cause severe damage to cells of the eyes of some animals.

The king crab was chosen for this experiment because of its large lateral eyes.

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BIOLOGY

Russians Work on Germ-Radiological Warfare

IN THE EVENT of a war the Russians will probably use a deadly one-two-three punch of chemicals, microorganisms and radioactive substances.

Any combination of these three agents is deadlier than one alone, the Russians have found. This is stated in a report by Russian scientists on the best means for destroying the enemy and any possible means of protection he may devise.

The report was made in *The Organization of Medical Service Following Mass Contamination of the Population* translated and distributed by the Central Intelligence Agency.

In their study the Russian scientists made the following points:

1. Radiation sickness that follows the introduction of radioactive substances into the body, destroys the body's antibody production. This means that any protective program of immunization, such as might be set up by a nation's public health service,

against biological warfare would be meaningless.

2. Ordinary microorganisms normally found in the body can be turned into deadly killers, using the combined forms of warfare discussed in the article.

3. The body's normal barriers to "germs" can be torn down, destroyed by chemicals alone or in combination with radioactive substances.

4. Disease-causing microorganisms can be made to penetrate the body's defenses much faster. They can be combined with chemicals, radioactive substances or other microorganisms so that scientists will not be able to diagnose and treat the resulting disease.

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