

PSYCHOLOGY

Stress to Fight Mental Ill

Revolutionary treatment for schizophrenia, sometimes called split personality, is to expose the patient gradually to the normal stresses of living.

➤ A "NEW and revolutionary" treatment for the child who is on the verge of developing the serious mental disease, schizophrenia, was proposed by Drs. Curtis T. Prout and Mary Alice White of the New York Hospital, Westchester Division, White Plains, N. Y., before the American Psychiatric Association in Atlantic City, N. J.

Schizophrenia is sometimes called the split personality disease, though actually patients do not always show that trait. Often they are completely withdrawn from the world of reality, apparently preferring to live in a dream world of their own.

With the new treatment, psychiatrists would stop their current practice of looking for defects in parents' handling of a child who seemed pre-schizophrenic. Instead, the child would be gradually exposed to normal stresses, to strengthen his ability to withstand them.

"He would be trained to independence and armored against his over-sensitivity," as the psychiatrists put it.

The idea for the new revolutionary treatment came from a study of brothers and sisters of 30 schizophrenic patients. From this study came such opposite attitudes toward injuries as the following:

"When I had an ovary taken out I thought my life was ruined," said a woman with schizophrenia. (Loss of one ovary does not bar a woman from motherhood or normal sex life.)

"I didn't feel handicapped because I lost one eye," said the patient's normal younger sister.

In every one of the 30 cases, the patient and brother or sister grew up in the same family and same environment. But their reactions to ordinary difficulties were markedly different. So also were their personalities. The striking differences were evident when patient and brother or sister were quite small.

Their mothers described the patients as, "sensitive; sweet; shy; serious; introspective," while the brothers and sisters were, "independent; outgoing; rebellious; better able to stand on their own feet."

The pre-schizophrenic child's inherent personality, apparently, caused him to react abnormally to common experiences. His parents in turn, responded to his desire for support by over-protecting him. The result was a dependent, passive youngster, unprepared to cope with the ups and downs of everyday living.

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RADIO ASTRONOMY

Radio Source In Cygnus

➤ A NEW, strong radio source has been discovered in the Great Loop in Cygnus, the swan, a heavenly object observed photographically by astronomers for several decades.

The discovery offers an "unrivaled opportunity" to study the correlation between radio emission and visible structure, Drs. D. Walsh and R. Hanbury Brown, radio astronomers at the Jodrell Bank Experimental Station, Cheshire, England, stated.

Radio "stars" send out radio waves, picked up on earth by receivers called radio telescopes. About 200 such sources are known, but only five of them have previously been identified with visible nebulosities within the Milky Way galaxy, in which the sun is but one of billions of stars.

A few other radio sources have been identified with heavenly objects far beyond the Milky Way galaxy.

The new, intense radio "star" is located just below the eastern wing tip of the swan, a constellation that forms an imaginary picture in the sky of a giant bird with a stretched out neck, widespread wings and

trailing legs. Cygnus lies in the direction of one arm of the spiral-shaped starry pinwheel of the Milky Way.

Radio waves from the approximate position of the Great Loop in Cygnus were caught with the 218-foot radio "saucer" operating at 92.5 megacycles, Drs. Walsh and Brown reported in the British scientific journal, *Nature* (May 7). "More positive identification" of the radio and visible sources as identical must await further exploration of this region in Cygnus with a more accurate radio telescope, they said.

From photographic studies, this part of Cygnus has been named the Great Loop. It consists of several nebulae, including two that are faintly connected and seem to form a wreath. The wreath is believed to have been formed by material expelled from a great nova that blazed up about 150,000 years ago.

The Great Loop remarkably resembles a mass of nebulosity known by its star catalogue number, IC 443, in the constellation of Gemini, the twins. Discovery in 1954 that this is also a radio source prompted

Drs. Walsh and Brown to scan the Great Loop in Cygnus for radio waves. (See SNL, Jan. 30, 1954, p. 66.)

Other radio sources identified with galactic nebulosities are the Crab Nebula in Taurus, also the remnant of an exploding supernova and one of the brightest such objects ever found, and sources in the constellations of Cassiopeia, Puppis and Auriga.

The angular size of the new radio source is "at least as great as that of the Loop," and is shown in their report by a circle of diameter three degrees. When this estimated position is superimposed on the nebulosities forming the Great Loop, the radio source lies within and somewhat toward its lower edge.

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MEDICINE

Anti-Cancer Serum From Horse Works in Lab

➤ HUMAN CANCER cells growing outside the body in laboratory flasks can be killed by a serum from a horse, Drs. Bertil Bjorklund of the State Laboratory of Bacteriology, Stockholm, Sweden, and Drs. John and Ruth Graham of Vincent Memorial Hospital, Boston, announced at the meeting of the Society of American Bacteriologists in New York.

The anti-cancer serum was made by repeatedly injecting cancers pooled from 56 persons under the skin of a horse. After treatment to remove antibodies toward normal human blood plasma constituents, the horse anti-cancer serum was tested against freshly isolated cancer and normal cells from the same person.

After one day the cancer cells showed destructive changes which developed gradually and in some cases went on to complete destruction. The action was selective for the cancer cells, leaving normal cells unharmed. The scientists are now at work trying to learn more about the process.

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MEDICINE

Find Chemical Changes In Blood in Leprosy

➤ CHANGES IN the proteins in the blood of patients with Hansen's disease (leprosy) were reported by Drs. Rudolph J. Muelling, Catherine Goetz and Lawrence L. Swan, and Sister Hilary Ross of Charity Hospital, New Orleans, and U. S. Public Health Service Hospital, Carville, La., at the meeting of the International Association of Medical Museums at Houston, Tex.

The changes were in the globulins of the blood serum. In early stages of the disease these were only slightly increased. In more advanced stages severe abnormalities showed in the serum protein pattern.

The studies, it was said, might lead to a diagnostic test, earlier detection and possibly a more effective treatment.

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