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The articles described in these abstracts are not available from either the Clearinghouse or the Schizophrenia Research Branch, but are available for access through Dialog Information Retrieval Systems in reference departments of major university libraries and public libraries.

Attention, Perception, Cognition


The ability of paranoid and nonparanoid schizophrenic patients, psychiatric controls, and aged controls to use temporal and amplitude cues to make judgments about the direction of auditory stimuli on an auditory lateralization task is investigated. Twelve subjects in each group were tested on three lateralization conditions: temporal-fixed, temporal-shifted, and amplitude. The subjects' task was to identify the apparent direction (left or right) of a train of clicks presented binaurally through headphones. In the temporal conditions, interaural click onset differences provided the lateralization cues, while in the amplitude condition, interaural amplitude differences provided the cues. In the temporal-fixed condition, onset asynchrony was constant for the duration of each stimulus. In the temporal-shifted condition, onset asynchrony was introduced midway through each stimulus presentation. A forced-choice random staircase method was used to determine the 70 percent correct response threshold for each subject. Results indicated that paranoids had particular difficulty with the temporal-fixed condition relative to the temporal-shifted condition. The opposite was true for the nonparanoids. Both control groups showed no significant difference in performance on the two temporal conditions. Psychiatric controls performed significantly better than aged controls in both the fixed and shifted conditions. There were no significant differences among groups on the amplitude condition. The data were discussed in terms of schizophrenic patients' clinical symptoms and previous perceptual research with schizophrenic patients. (23 references)

6633. Bernstein, A.S.; Frith, C.D.; Gruzelier, J.H.; Patterson, T.; Straube, E.; Venables, P.H.; and Zahn, T.P. (Department of Psychiatry, State University of New

The existing literature involving the phasic orienting response (OR) in schizophrenia by examining the skin conductance component (SCOR) reports conflicting results with divergent implications for the nature of the attentional dysfunction in these patients. This report addresses this issue by applying a common set of response definitions and uniform statistical-analytic procedures to the previously gathered electrodermal data obtained independently in each author's laboratory. A total of 14 studies is involved, drawn from six laboratories in the United States, United Kingdom, and West Germany. Collectively, these studies examine chronic and acute schizophrenics, males and females, those receiving and not receiving neuroleptic drugs. (60 references)


An information processing model for schizophrenia is presented to overcome paradoxes that are problematic for diagnosis. It is contended that an information processing disorder must be present for a person to be diagnosed as schizophrenic, and that it is present when schizophrenia symptoms occur along with other diseases. The proposed model suggests that schizophrenia symptoms occur along with other diseases and that schizophrenics have a deficiency in information processing that can be characterized as conscious, serial, and limited in channel capacity. In contrast, those processes that seem automatic, unconscious, parallel, and almost unlimited in capacity are seen as being normal or supernormal. Characteristics of the limited channel capacity processes (LCCPs) in schizophrenia are described, and results are reviewed from studies of auditory evoked potential and delayed recovery cycles which may be relevant to schizophrenia. In addition to making predictions about the disorder, the model also is considered helpful in researching three areas where the empirical base is especially weak: LCCP plasticity, state-trait ambiguity, and lack of comparisons between paradigms. (61 references)


Latency and redundancy deficit, two indexes of reaction time performance that reliably show impairment in process schizophrenics, were assessed using normal subjects with no psychiatric history. Subjects were tested under standard/optimal and drug-impaired conditions to evaluate whether an expected increase in latency would be accompanied by a correlated increase in redundancy deficit. In other research the redundancy deficit index has been found to be independent of latency and also has shown special promise as a marker of schizophrenic information processing difficulty. The present findings confirmed the independence of these two markers in that no increased redundancy deficit was observed despite a significant increase in latency. The findings also revealed a greater degree of redundancy deficit in normals under the optimal conditions than had been expected. In response to this observation, a methodological problem with trial arrangements was discussed and a thorough review of studies which tested redundancy deficit in normal subjects was conducted. (33 references)


Three groups of schizophrenic diseases which cannot be differentiated with regard to psychopathological cross-section syndromes were investigated using psychological tests. One group (22 cases) of reversible postpsychotic basic stages and two groups of pure residual syndromes with an average duration of disease of 9.3 years (20 cases) and 17.5 years (21 cases) were studied. All three groups deviated significantly from the norm. The pathological values were most marked in performance on the HAWIE (Hamburg-Wechsler Adult Intelligence Scale). All groups showed a significant lowering of performance compared with the verbal scale (which corresponds approximately to the premorbid intelligence level), the concentration lapse test, and measures of sensorimotor reaction time by the Wiener reaction test. They also scored lower on the Benton test and on examinations with a writing scale. Reversible
postpsychotic asthenic basic stages were not significantly differentiated in psychological tests from pure residual syndromes which were compared with regard to sex and age at disease onset and (in the pure residual group) with regard to age and school success. Decreased performance on the reaction test, the concentration test, and in the nonverbal portion of the HAWIE correlated with symptoms identified by other tests. The positive correlation was more distinct in reversible postpsychotic basic stages than in pure residuals. The findings support the global hypothesis that deficiencies of schizophrenic stages with a component of reversible or irreversible pure potential reduction are based on disturbances of perception and interpretation of information. They also support the assumption of no fundamental differences between cerebro-organic or psychosyndromes of schizophrenic diseases determined by the dynamic and cognitive disorders of pure deficiency. (31 references)


This study evaluated the hypothesis that schizophrenic conceptual disorder derives from abnormal verbal encoding, geared to salient affective and physical cues at the expense of conceptual attributes. Subjects were 63 adult psychotic inpatients, including 42 schizophrenics and 21 nonschizophrenics of similar age, sex, race, and chronicity. They underwent 12 trials on Wickers' release from proactive interference (PI) procedure to measure reliance on three dimensions for encoding: conceptual (taxonomic class), affective (evaluation axis of the semantic differential), and physical (rhyming sounds). The release effect for schizophrenics, compared with controls, was found to be significantly weaker on the conceptual dimension and correspondingly stronger on the affective dimension. Whereas controls exhibited the normal attraction to conceptual over other cues, schizophrenics presented a flat profile. Nonparanoid and thought-disordered schizophrenics showed particular deficits on the conceptual dimension. All schizophrenic groups contrasted controls by their diminished PI release with less salient concepts. The results thus suggested that encoding by schizophrenics is uniquely oriented to stimulus salience rather than semantic relevance. A fundamental deficiency in processing of cues essential for conceptual operations, accordingly, seems to underlie the conceptual dysfunction in schizophrenia. The implications were discussed in relation to diversities in the cognitive literature and prevalent theories. (66 references)


Acute schizophrenics were compared with depressed, normal, and brain-damaged subjects on their ability to appreciate a meaningful picture. Their responses were measured for level of abstraction (how well the theme was conveyed), for strategy (whether details were reported before or after global interpretation), and for appropriateness of content. Schizophrenics were less abstract than normals, more abstract than damaged subjects, but no different from depressives on this measure. Their strategy was different from normal subjects, but comparable with that of depressive subjects. The majority of schizophrenics gave inappropriate responses. It is suggested that meaningful picture interpretation might be a useful tool for evaluating the distortion of meaning which characterizes schizophrenia. (22 references)


Schizophrenic persons with average intelligence and dual-diagnosis mentally retarded schizophrenic persons were tested in a forced-choice letter discrimination task to examine the relationship between schizophrenia and retardation relative to the information-processing theory. The subjects were eight schizophrenic persons of average or better intelligence, eight mentally retarded schizophrenic persons, and a control group of eight minor depressive individuals who matched the nonretarded schizophrenic group for intelligence. The groups did not differ significantly on the minimum exposure duration needed to identify an unmasked target stimulus at criterion levels of accuracy. When masked stimuli were employed, however, the depressive group had significantly more correct detections than both schizophrenic groups. More importantly, the performance of the two schizophrenic groups did not differ significantly. Data indicated that schizophrenic
deficits in information processing are independent of intellectual factors. Thus, vulnerability to a masking stimulus in schizophrenic persons can be attributed to the pathology of schizophrenia. This vulnerability indicates that schizophrenic patients are slow information processors. (31 references)


Simple reaction time (RT) obtained from trials presented in isotemporal series (preparatory intervals of the same duration) were partitioned into premyographic and myographic time components for 20 schizophrenic and 20 normal subjects according to a previously developed procedure. This procedure allowed examination of the relative contributions made by these RT components to (a) overall mean reaction time and (b) the crossover pattern of responding as first observed by David Shakow. In addition, a within-subject comparison of the traditional pressure-release motor task and an alternative press-only motor task was made. Differential predictions were made on the effect of the task manipulation from (a) the loss of major set and (b) the reactive inhabitation interpretational positions. It was found that the schizophrenics' crossover pattern of responding was specific to the press-release task. Furthermore, it was apparent that both premyographic and myographic components of the RT interval contributed to (a) their overall longer mean RTs, as well as (b) their increased magnitude of crossover. The results support the view that inhibitory processes triggered by the increased levels of arousal during the isotemporal series are responsible for the schizophrenics' crossover pattern of responding on the press-release task. Loss of major set explanation is not incompatible with a reactive inhibition explanation of the crossover effect. (25 references)

Biology


The action of central nervous system inhibitory neuronal mechanisms was tested in acutely psychotic unmedicated schizophrenic patients and in normal controls. An early positive component of the auditory average evoked response recorded at the vertex 50 msec after a click stimulus was studied. Stimuli were delivered at 10-second intervals to establish a baseline response. Inhibitory mechanisms were then tested using a conditioning-testing paradigm by assessing the change in response to a second stimulus following the first at either 0.5-, 1.0-, or 2.0-second intervals. At the 0.5-second interval, normal controls had over 90 percent mean decrement in response, whereas schizophrenics showed less than a 15 percent mean decrement. At 2-second intervals, responses from normals were still over 90 percent mean decrement in response, whereas schizophrenics showed less than a 15 percent mean decrement. At 2-second intervals, responses from normals were still 30-50 percent diminished, but those from schizophrenics showed an increased response to the stimulus compared to baseline. The data suggest that normally present inhibitory mechanisms are markedly reduced in schizophrenics. Failure of these inhibitory mechanisms may be responsible for the defects in sensory gating, an important part of the pathophysiology of schizophrenia. (29 references)


In a study designed to evaluate the state of arousal and the autonomic reactivity to experimental conditions in schizophrenic patients, 12 acute, unmedicated schizophrenic patients with paranoid hallucinatory symptomatology and 63 healthy normal control subjects were administered four standardized tasks: cold pressor test, noise, mental arithmetic, and active relaxation. Biochemical (norepinephrine and cortisol) and physiological (electromyogram, electroencephalogram, skin conductance response, skin conductance level, finger pulse amplitude, finger temperature, heart rate, respiratory volume, pulse wave velocity, and electrogastrogram) parameters were measured simultaneously. Schizophrenic patients showed elevated levels of norepinephrine and cortisol, as well as heightened responsivity on measures of electromyographic activity, skin conductance level, and heart rate and reduced responsivity to conditions of stress. It is concluded that schizophrenic patients show higher nonspecific activation and reduced ability to react to external stimulation, perhaps induced by lack of inhibition of the reticular
although a trend toward decreased normal controls was observed, between schizophrenic patients and (Km and Vmax) of 5-HT uptake difference in the kinetic parameters previous reports, no significant phrenic patients was compared with hydroxytryptamine; 5-HT) by blood platelets of acute and chronic schizo-
possible indirect indicator of cerebral atrophy, was higher than that of normal controls. Unlike schizophrenics may have had abnormalities of 5-HT uptake do not appear to contribute significantly to the increased platelet 5-HT levels reported in schizophrenic patients. (39 references) 6645. Baron, M.; Perumal, A.S.; Leviit, M.; and Cannova, G. (New York State Psychiatric Institute, 722 W. 168th St., New York, NY 10032) Platelet monoamine oxidase in schizophrenia with beta-phenylethylamine and benzylamine as substrates. Biological Psychiatry, 17(4):479-483, 1982.

Hypothesized abnormal left hemispheric function, deviations from normal functional asymmetry, or normal asymmetry reversals in schizophrenia were investigated in 43 right-handed schizophrenic patients and 40 right-handed controls. Frontal and occipital petalia and frontal and occipital width of each hemisphere on computerized tomographs were measured. There were no significant differences in structural asymmetry between the groups. Eight left-handed schizophrenics may have had abnormal functional asymmetries; their mean ventricular-brain ratio, a possible indirect indicator of cerebral atrophy, was higher than that of right-handed patients. (13 references) 6644. Arora, R.C., and Meltzer, H.Y. (Dept. of Psychiatry, University of Chicago, Pritzker School of Medicine, Chicago, IL 60637) Serotonin uptake by blood platelets of schizophrenic patients. Psychiatry Research, 6(3):327-333, 1982.

Active uptake of serotonin (5-hydroxytryptamine; 5-HT) by blood platelets of acute and chronic schizophrenic patients was compared with that of normal controls. Unlike previous reports, no significant difference in the kinetic parameters (Km and Vmax) of 5-HT uptake between schizophrenic patients and normal controls was observed, although a trend toward decreased Vmax in the acute schizophrenics was present. Since decreased Vmax of platelet 5-HT uptake has been found in patients with bipolar, unipolar, and schizoaffective depression, further study of the usefulness of platelet 5-HT uptake as a biological marker for major depressive illness is indicated. Abnormalities of 5-HT uptake do not appear to contribute significantly to the increased platelet 5-HT levels reported in schizophrenic patients. (39 references)

The relationship of β-phenylethylamine (PEA) concentration to platelet monoamine oxidase (MAO) activity was studied and the optimal PEA concentration for MAO assay was sought. Platelet MAO activity levels using PEA and benzylamine as substrates were examined at optimal concentrations in 10 chronic schizophrenic males and 10 age- and sex-matched normal controls. Results show that a relatively narrow range of PEA concentration yields maximal MAO activity. The significant correlations between MAO activities obtained with PEA and benzylamine and the similarity in the slopes of the regression lines in patients and controls indicate that substrate-related differences between schizophrenics and normal controls do not exist in the present population. Results reaffirm the importance of using optimal substrate concentrations in measuring platelet MAO activity. (11 references)


The computed tomographic scans of 11 schizophrenic patients and 26 controls were evaluated for both linear (Evans’ and cella media ratios) and volume (planimetry and grid ratios) measurements of ventricular size. There were no differences between the two groups on any of the measures obtained. These results are related to previous reports showing ventricular enlargement in schizophrenics. The relatively younger age and briefer period of hospitalization in the present sample are suggested as variables possibly associated with these findings. (18 references) 6647. Bochkarev, V.K., and Panyushkina, S.V. (Lab. neurofiziol. Institut psikhiatr. AMN SSSR, Moskva, USSR) Study of the dynamics of the integral parameters of the background EEG during treatment with neuroleptics. Zhurnal Nevropatologii i Psikhiatrii imeni S.S. Korsakova, 82(2):258-264, 1982.

The electroencephalogram dynamics of schizophrenic patients from the acute psychotic state until remission were studied by computerized component analysis during treatment with chlorpromazine, leponex, and combinations of neuroleptics, and were examined in relation to the concepts of activation processes. The possible role of those processes in the neurophysiological mechanisms of the therapeutic effect of neuroleptics is discussed. (16 references) 6648. Buchsbaum, M.S.; Ingvar, D.H.; Kessler, R.; Waters, R.N.;
Local cerebral uptake of deoxyglucose labeled with fluorine 18 was measured by positron emission tomography in eight patients with schizophrenia who were not receiving medication and in six age-matched normal controls. Subjects sat in an acoustically treated, darkened room with eyes closed after injection of 3-5 mCi of deoxyglucose 18F. After uptake, seven to eight horizontal brain scans parallel to the canthomeatal line were done. Scans were treated digitally, with a 2.3-cm strip peeled off each slice and ratios to whole slice activity computed. Patients with schizophrenia showed lower ratios in the frontal cortex, matter areas on the left, but not on the right side. These results are only preliminary; issues of control of mental activity, brain structure identification, and biologic and anatomic heterogeneity of schizophrenia remain to be explored. (50 references)


Tardive dyskinesia is believed to result from a dopamine (DA) receptor supersensitivity in the neostriatum that develops after prolonged DA receptor blockade by neuroleptic medication. It is proposed that similar changes occur in the mesolimbic pathway in response to chronic DA receptor blockade by these drugs and that a sudden return of psychotic symptoms following neuroleptic withdrawal or dosage decrease could be the clinical expression of mesolimbic postsynaptic DA receptor supersensitivity. This phenomenon is termed "supersensitivity psychosis." The use of radioreceptor assay of neuroleptics is reported in two patients manifesting symptoms of supersensitivity psychosis. (10 references)


p-Chlorophenylalanine (PCPA), an inhibitor of tryptophan hydroxylase, the enzyme involved in the rate limiting step of the synthesis of 5-hydroxytryptophan, was administered in a double-blind trial to seven actively symptomatic, chronic schizophrenic patients. The Brief Psychiatric Rating Scale (BPRS) was recorded twice daily for each patient by trained nurse raters and weekly by a research psychiatrist, all of whom were blind to the medication status of the patients. Mean total BPRS scores, as well as most individual symptom clusters, showed no significant differences between placebo and active PCPA trial periods for all seven patients as a group. It is concluded that PCPA at a dose of 3,000 mg/day did not produce significant clinical improvement in these patients despite a previous report of success. The apparent discrepancy may have resulted from differences in patient selection. Failure of PCPA to initiate clinical change after inhibition of the rate-limiting enzyme makes the serotonin and indoleamine hypothesis of schizophrenia less plausible. (33 references)


One aspect of monoamine physiology in schizophrenia was examined when cerebrospinal fluid levels of pterin cofactor were measured in 11 off-medication schizophrenic patients and compared with 24 normal control subjects. No significant differences were found. Platelet monoamine oxidase activity correlates significantly with pterin levels in male schizophrenic subjects and in female controls. (29 references)

Cerebrospinal fluid (CSF) glutamate levels were measured in 28 paranoid schizophrenic patients and 15 healthy controls. Fifteen of the patients were being treated with neuroleptic drugs and 13 were not receiving any drugs. No significant difference was found between glutamate level in patients not receiving neuroleptics and in controls. CSF glutamate was significantly higher in patients taking neuroleptics than in controls ($p < .001$) or in patients not receiving neuroleptics. These findings, as well as other data from the literature, indicate the enhanced levels of cerebral glutamate may be significant for the antipsychotic efficacy of neuroleptic drugs. (12 references)


Beta-Endorphin immunoreactivity was measured in cerebrospinal fluid (CSF) of 75 medication-free subjects: normal, depressed, manic, schizophrenic, and anorexic subjects. No significant differences in beta-endorphin immunoreactivity were found. Affinity extraction chromatography revealed beta-lipotropin and beta-endorphin, but no apparent precursors. Results suggest that a simple hypothesis of excess or diminished central beta-endorphin immunoreactivity levels is unlikely to account for these major psychiatric disorders. (13 references)


Immunoreactive somatostatin, bombesin, and cholecystokinin (CCK) were measured in the cerebrospinal fluid of normal subjects and patients with anorexia nervosa, depression, mania, and schizophrenia. Somatostatin-like immunoreactivity was decreased in anorexic and depressed patients. Bombesin-like immunoreactivity tended to be decreased in schizophrenics. CCK-like immunoreactivity did not differ between groups. Results suggest that neuropeptides may have a role in the regulation of human behavior. (26 references)


A random sample of schizophrenic outpatients, 26 men and 29 women, treated with neuroleptics was selected from a long-term followup clinic. The patients rated their current sexual functioning on specially designed scales: 54 percent of male and 30 percent of female patients reported impaired sexual functioning during neuroleptic treatment, and 91 percent of female patients reported changes in menstruation. Partial correlation coefficients were calculated between sexual dysfunction score and plasma prolactin level adjusting for age. Sexual dysfunction was associated with high plasma prolactin levels in male patients but not in female patients. High prolactin tended also to be associated with menstrual disturbances. Antiparkinsonian medication was not correlated with either sexual dysfunction or menstrual disorder score. (20 references)


The contralateral and ipsilateral somatosensory evoked potentials (SEP) after stimulation of the right and left median nerve were recorded in 10 patients with chronic schizophrenia and in 10 normal subjects. The ipsilateral SEP depends on the function of the corpus callosum. The latency-delay from peak 5 in the contralateral SEP to the analogous peak in the ipsilateral SEP was significantly reduced in the patients, but only from the left to the right hemisphere. This peak presumably represents interhemispheric transfer and function of corpus callosum. The amount of synaptic activity—measured by the mean amplitude of the SEP—in the right hemisphere, relative to the activity in the left hemisphere after stimulation of the right median nerve, was also greater in the patients. These differences could be interpreted as an abnormal function of the corpus callosum and as a breakdown of the lateral specialization of the left cerebral hemisphere in schizophrenia. (21 references)

6657. Iacono, W.G. (University of British Columbia, Vancouver, British Columbia, Canada) Bilateral electrodermal habituation-dishabituation and resting EEG in remitted schizo-

This study examined bilateral electrodermal responding, heart rate, and resting electroencephalogram (EEG) in schizophrenic patients who were not psychotic at the time of testing. Twenty-four carefully diagnosed, remitted schizophrenics and 22 medical outpatient controls were exposed to 17 pure tones; the 16th tone differed in frequency and duration from the others. Before the tone series, subjects engaged in 2 minutes of respiratory maneuvers followed by a 5-minute rest period during which EEG was recorded. Schizophrenic patients divided evenly into responding and nonresponding groups and skin conductance responding was associated with a higher rate of spontaneous activity, elevated tonic conductance levels, and more response during the respiratory exercises. When those responding in the control and schizophrenic groups were compared for number and amplitude of tone-elicited responses, no group differences emerged. There were no differences in dishabituation between these two groups and a variety of analyses failed to reveal any evidence of electrodermal or cerebral asymmetry. There were no differences between the two schizophrenic groups in measures of heart rate or resting EEG; however, the schizophrenic patients as a group produced less EEG \( \alpha \) and more \( \delta \) than the normal subjects. These results identified in psychiatric, hospitalized patients represent stable traits characteristic of schizophrenia. (66 references)


To confirm and extend previous observations of the correlation between cell-mediated immunity and psychiatric diseases, 511 patients with schizophrenia, cerebral atrophy, dementia, depression, and mental retardation, and 32 control subjects and 27 control patients were skin-tested with human brain S-100 protein and human liver protein. Of psychiatric patients tested, 70.2-93.1 percent developed positive skin hypersensitivity reactions to S-100 protein, while 2.8-20.7 percent of patients reacted to liver protein. Of control subjects, 6.2-7.4 percent responded to S-100 protein, and 7.3-9.8 percent to liver protein. The findings indicate that cell-mediated immune processes may be involved in brain mechanisms underlying cerebral atrophy, depression, schizophrenia, and mental retardation. (50 references)


A preliminary double-blind trial of high-dose diazepam (250-300 mg/day) was conducted in five schizophrenic and one schizoaffective inpatients. The schizoaffective patient and one of two schizophrenic patients showed limited decreases in psychosis ratings. In the three other patients, sedation and ataxia necessitated limitation of the diazepam dose. These data, together with the lack of success with \( \gamma \)-amino-butyric acid (GABA) agonist administration in schizophrenia, suggest that currently available agents which act at the diazepam and GABA receptors or their complex are not notably effective antipsychotic agents. (10 references)


The prevalence of herpes simplex virus (HSV) antibodies has been investigated in 123 child psychiatric patients and 86 normal children. HSV antibodies were measured by the enzyme-linked immunosorbent assay (ELISA) technique. The prevalence of HSV antibodies in different diagnostic groups (conduct disorder, emotional disorder, hyperkinetic syndrome, anorexia nervosa, infantile autism, and borderline schizophrenia in childhood) was compared with age-matched normal children, but no significant differences were found. (19 references)


Plasma glutamate decarboxylase (GAD) activity was measured in patients with endogenous psychoses and neurologic diseases. Unmedicated schizophrenic patients showed no
The physiopathological significance (31 references) of this overactivity is questionable. Antidepressants and minor tranquilizers had no effect on plasma GAD activity. Relatively lower GAD activity was shown in neurotic patients. The enzyme activity in plasma of patients with Huntington's Chorea (HC) was lower than control levels. The plasma GAD concentrations correlated with cerebrospinal fluid concentrations in five HC patients. (33 references)

Noradrenaline (NA), dopamine (DA), and adrenaline (A) concentrations were determined by means of a specific, sensitive radioenzymatic method in plasma, cerebrospinal fluid (CSF), and urine of schizophrenic patients and in a group of age- and sex-matched controls with no history of mental disorder. NA levels were significantly increased both in plasma and CSF of schizophrenic patients, particularly in paranoid subgroups. The increase in plasma NA concentration can probably be ascribed to the higher unspecific arousal level of these patients, whereas the increase in CSF NA levels probably reflects a rise of central noradrenergic activity. The physiopathological significance of this overactivity is questionable. (31 references)


The validity of the suggestion that food allergy is relevant to the manifestation of schizophrenic illness was investigated. Antibodies to oats, wheat gluten, chicken, calf, and milk protein were measured in 98 schizophrenic patients and in 90 unaffected close blood relatives. The majority of subjects were male outpatients on neuroleptic medication. Antibodies were detected in only a minority of patients. (25 references)


Recent developments in biological psychiatry offer clinicians the opportunity to apply new techniques to the diagnosis and treatment of mental disorders. For instance, the dexamethasone suppression test has been used in the differential diagnosis of depression, and high doses of propranolol have been reported to improve schizophrenic symptoms. Studies now suggest that lithium may be equally effective in treating schizophrenia and, thus, provide no support for the GABA deficiency hypotheses of schizophrenia. By contrast, high doses of drugs known to act at GABA receptors other than the receptor responsible for postsynaptic inhibition all are capable of inducing acute psychoses, which vary from an apparent exacerbation of schizophrenia syndrome in patients with acute schizophrenia to an organic confusional state in patients with a variety of neurological disorders. Thus, an excessive local release of GABA, or hypersensitivity of a subgroup of GABA receptors, or an endogenous GABA agonist might be responsible for some features of acute psychotic syndromes. (59 references)


The enzyme activity in plasma of patients with Huntington's Chorea (HC) was lower than control levels. The plasma GAD concentrations correlated with cerebrospinal fluid concentrations in five HC patients. (33 references)


Biochemical and pharmacological observations relevant to a role of y-amino-butyric acid (GABA) in schizophrenia and acute psychoses are reviewed. Overall, clinical studies of GABA agonists or GABA-mimetics show no therapeutic actions against the positive symptoms of acute schizophrenia and, thus, provide no support for the GABA deficiency hypotheses of schizophrenia. By contrast, high doses of drugs known to act at GABA receptors other than the receptor responsible for postsynaptic inhibition all are capable of inducing acute psychoses, which vary from an apparent exacerbation of schizophrenia syndrome in patients with acute schizophrenia to an organic confusional state in patients with a variety of neurological disorders. Thus, an excessive local release of GABA, or hypersensitivity of a subgroup of GABA receptors, or an endogenous GABA agonist might be responsible for some features of acute psychotic syndromes. (59 references)

Computed tomographic head scans of 24 young manic males were compared with those of 27 matched control subjects, and 55 chronic schizophrenic patients to compare cerebral ventricular size. Cerebral ventricular size was significantly larger in the manic and schizophrenic patients, compared to controls. There was no difference in size between the manic and schizophrenic groups, suggesting that cerebral ventricular enlargement may be a nonspecific neuroanatomical correlate of psychotic disorders. It is suggested that family history of psychosis, past history of perinatal brain injury, infantile encephalitis or head injury, and electroencephalogram abnormalities should be recorded on all patients with mania or schizophrenia.

(14 references)

6669. Nasrallah, H.A.; McCalley-Whitters, M.; and Jacoby, C.G. (Psychiatry Service, VA Medical Center, Iowa City, IA 52240)


Computed tomographic head scans of 24 young manic males were compared with those of 27 matched control subjects, and 55 chronic schizophrenic patients to compare cerebral ventricular size. Cerebral ventricular size was significantly larger in the manic and schizophrenic patients, compared to controls. There was no difference in size between the manic and schizophrenic groups, suggesting that cerebral ventricular enlargement may be a nonspecific neuroanatomical correlate of psychotic disorders. It is suggested that family history of psychosis, past history of perinatal brain injury, infantile encephalitis or head injury, and electroencephalogram abnormalities should be recorded on all patients with mania or schizophrenia.

(14 references)

Neuropsychological performance of schizophrenics with and without brain damage was measured by the Whitaker Index of Schizophrenic Thinking and the Luria-Nebraska Neuropsychological Battery. Inpatient volunteers (11 brain damaged and 15 nondamaged) with a diagnosis of schizophrenia were administered both tests individually. Results indicate that none of the five scores of the Whitaker differentiated between the two groups. Of the 14 summary scales of the Luria-Nebraska, 8 differentiated between subtests: motor, tactile, visual, writing, arithmetic, right hemisphere, left hemisphere, and pathognomic scales. While cognitive variables, as measured by the Whitaker, may be impaired further with organicity, other variables measured by the Luria-Nebraska were more effective in differentiating between groups. (6 references)


Serum creatine phosphokinase levels were examined in 18 patients meeting St. Louis Research Diagnostic Criteria (RDC) for schizophrenia and 36 comparison subjects with other RDC diagnoses. Mean initial serum creatine phosphokinase levels of schizophrenics were significantly higher than those of subjects in other diagnostic groups. There were no corresponding elevations in the serum levels of nondrinking alcoholics or patients with primary or secondary affective disorders. It is suggested that increased creatine phosphokinase levels in schizophrenic patients may be due to a sudden increase in the substance in the dopaminergic or limbic system due to increased muscle membrane permeability or to sympathetic nervous system or adrenergic dominance. (12 references)

6673. Schweitzer, L. (Baylor College of Medicine, Houston, TX 77025) Evidence of right cerebral hemisphere dysfunction in schizophrenic patients with left hemisphere overactivation. Biological Psychiatry, 17(6):655-673, 1982.

A number of laterality studies using initial lateral eye movements as a measure of unbalanced frontal hemisphere activity have demonstrated that schizophrenics look to their right more often than normals or depressives when thinking about spatial and/or emotional material. This increase in right gaze responses represents increased left hemisphere responsiveness for spatial and emotional material. Thus, it was predicted that schizophrenics would be more receptive to their left hemisphere and would detect rapidly appearing spatial stimuli presented to their left hemisphere more accurately than to their right hemisphere. Further, it was expected that schizophrenics would perform better than controls when identifying rapidly presented shapes in the left hemisphere. Using visual half-field presentation of verbal and spatial material, the experimental prediction of increased left hemisphere accuracy for shape detection within the schizophrenic group was corroborated. However, there was an unexpected, significant right hemisphere deficit for spatial identification between the schizophrenic group and the normal controls, suggesting that schizophrenics may have a primary deficit in their right hemisphere. The apparent left hemisphere increase in activity for spatial material reported by Gur and Schweitzer may thus be a compensatory mechanism for a primary failure of the schizophrenic's right hemisphere to maintain normal attention and vigilance. (26 references).


Recent studies which have found elevated levels of norepinephrine (NE) in cerebrospinal fluid and brain specimens from schizophrenics are discussed. Presynaptic inhibitory a-2-adrenergic receptors regulate NE release in the brain. Schizophrenic patients and age-matched normal controls were used to test the hypothesis that the functional sensitivity of this presynaptic regulation of NE is impaired in schizophrenia. The ability of clonidine, an a-2 agonist, to lower plasma levels of the NE metabolite 3-methoxy-4-hydroxyphenylglycol (MHPG) and to lower blood pressure (BP) in patients and controls was evaluated. Clonidine produced a significant decrease in plasma MHPG levels in controls, but
not in schizophrenic subjects. It decreased BP in both groups. The results suggest that there is a functional subsensitivity of the inhibitory presynaptic α2-adrenergic receptor in schizophrenia which may relate to an impaired regulation of NE turnover. (67 references)


In 10 of 30 schizophrenic subjects treated with pimozide for 5 weeks, 20 mg of dextroamphetamine sulfate induces an increase in synthesis. The number of patients becoming more psychotic with the dextroamphetamine challenge was not significantly different from the number who worsened after dextroamphetamine challenge when pretreated with placebo. Half of the subjects who showed a psychotic response to dextroamphetamine during placebo pretreatment responded to dextroamphetamine with an increase in psychosis after pimozide treatment. Dextroamphetamine induced a worsening in subjects who had improved with pimozide. The stability of the preinfusion condition was more important to the type of response to dextroamphetamine than long-term pretreatment with a dopamine receptor blocker. The activation euphoria response to dextroamphetamine was unaffected by pimozide pretreatment. This suggests that the change in psychosis and activation may be regulated by different mechanisms. The findings are seen as questioning the postulated relationship between the antipsychotic drug response and dopamine receptor blockade. (102 references)


Acute behavioral response to 20 mg of dextroamphetamine i.v. predicts week 4 antipsychotic response to double-blind pimozide treatment. Patients whose psychotic condition improved with dextroamphetamine administration showed more antipsychotic response to pimozide therapy than those whose condition worsened or did not change. Multiple regression analysis indicated amphetamine-induced response predicted pimozide response after 4 weeks, but week 5 pimozide response was more accurately predicted by prepimozide psychosis ratings. The results provide evidence that mechanisms underlying early and late pimozide response are not necessarily identical. Because patients who did not respond to dextroamphetamine administration still improved with pimozide therapy, the data do not support the concept that schizophrenia can be divided into two groups (dopamine sensitive or dopamine insensitive) but instead suggest that dopamine responsiveness changes over time. Clinical application is not warranted until studies with larger samples replicate these findings. (49 references)


Sera from normal controls and schizophrenics were examined for antithymic activity, employing a cytotoxicity test with C3H mouse thymocytes. The average level of antithymic activity in schizophrenics was considerably higher than that of controls. The antithymic activity in newly admitted unmedicated patients was not statistically different from that of hospitalized medical patients. There was no difference in antithymic activity within the hebephrenic, catatonic, and paranoid subdivisions of schizophrenia. The antithymic titer also did not correlate with the psychopathological status as assessed by the Brief Psychiatric Rating Scale total score. The antithymic activity against C3H mouse thymocytes in both the schizophrenic and control sera was completely absorbed with mouse brain tissue homogenate (where Thy-1 antigen was present) and liver homogenate (where Thy-1 was absent), but not with human brain and liver. It seems unlikely, therefore, that antithymic factor in human sera contains antibodies against Thy-1 (brain-associated thymic) antigen. Antithymic activity is not considered specific for schizophrenic illness, and the high antithymic activity found in schizophrenics might be produced against unknown xenoantigens, probably as a result of a nonspecific dysfunction of the immunological system in such patients. (25 references)
Case Studies


Fromm-Reichmann’s successful psychoanalytic treatment of a schizophrenic adolescent female, who later wrote “I Never Promised You a Rose Garden” under the name of Hannah Green, is discussed in a 1956 lecture given at the Ypsilanti Psychiatric Institute. The patient was admitted to the hospital following 2 years of psychiatric treatment for self-mutilation, hallucinations, and fear of persecution by men. Treatment was based on the assumption that the patient must accept illness as an expression and part of the self, and must befriend it and integrate it like other experiences. The clinical application of this assumption is illustrated in anecdotal materials concerned with the patient-analyst relationship, the patient’s relationship with her family, her loneliness, her fantasies, her difficulties with the female sexual role, and the significance and motivations of her compulsive over-eating and self-mutilation. At the end of treatment, the patient had shown great improvement; she went on to write her own treatment history, made friends, married, and started a family.


A case is described of neuroleptic-associated dysphagia in a chronic schizophrenic male, in whom manometry was used to document changes in esophageal motility during manipulation of the patient’s medication. Upper esophageal dysphagia was the etiology most consistent with manometric findings. As neuroleptic-associated dysphagia could be a potentially fatal side effect of schizophrenia, further research to elucidate the epidemiology and pathophysiology of this phenomenon is needed. (10 references)


A case is presented which shows that Capgras phenomenon may occur in patients with superimposed functional and organic mental disorders, that specific pharmacologic and pharmacokinetic factors may contribute to the syndrome, and that the delusion of doubles may persist in attenuated form even after the primary organic brain syndrome has subsided. While the Capgras syndrome appeared in the context of a mixed organic-functional illness, the syndrome was clearly separable from the patient’s chronic pathology. The case demonstrates the need for sophisticated prescription of psychotropics, and the potential hazards of polypharmacy. Finally, the patient’s hepatic dysfunction ought to remind clinicians that the metabolism and pharmacokinetics of psychotropic drugs must be carefully considered (7 references)


The case of a woman with paranoia who denied she was ill and refused medication is presented to illustrate the dilemma in evaluating and treating patients who deny their illness. The issue of whether a patient who denies his or her illness is truly legally competent to refuse or consent to treatment is examined. It is concluded that the assessment of such competency requires a consideration of the accuracy of the patient’s “appreciation of the nature of his or her situation” and that safeguards need to be built into a system for evaluating competency along these lines to prevent abuse. (13 references)

Cross-Cultural Studies


Data gathered in a 3-month field study of known schizophrenics in the Palau Islands reveal a 4:1 ratio of males to females. It is postulated that relatively rapid sociocultural changes over the last two decades have loosened traditional external restraints on behavior, destabilized male role and gender identities, and created an environment that has been particularly schizophrenogenic for males. Statistical analysis of the age distribution of the schizophrenic
patients is used to support the hypothesis. Evidence is also presented indicating that the gender distribution is not artifactual. (15 references)


This study assessed the extent and usefulness of Schneider's first-rank symptoms in the diagnosis of schizophrenia from a cross-cultural point of view. Case notes of patients admitted to the mental health ward of the University of Benin teaching hospital, Benin City, Nigeria, were analyzed. Of 78 schizophrenic patients studied, 47 (60.3 percent) had first-rank symptoms. This retrospective study attempts to replicate the studies of Mellor and Zarrouk to determine the following: (1) To what extent are first-rank symptoms manifested by schizophrenic patients in Nigeria? (2) Are first-rank symptoms an uncommon occurrence in a Nigerian population? (3) Is there a difference in occurrence of symptoms in the Nigerian population, compared with Mellor's European studies and studies by Zarrouk? (4) What is the cross-cultural validity of Schneider's first-rank symptoms in the diagnosis of schizophrenia? (10 references)


A German version of the Whitaker Index of Schizophrenic Thinking (WIST) was administered to West Germans diagnosed as acute or chronic schizophrenics and to groups of psychiatric and normal controls. The index values on the WIST differentiated the performance of the two schizophrenic groups from normal controls. Acute patients (unlike chronic schizophrenic patients) improved significantly from one test administration to the second. These results replicate the outcome of the original standardization study. The usefulness of the WIST definition of schizophrenic thinking which is based on nonlinguistic, cognitive variables, and the applicability of the WIST for cross-cultural diagnosis are discussed. (11 references)

Description


The psychopathology of black and white and of rural and urban schizophrenic patients is compared. Using a structured interview, psychiatrists rated 273 schizophrenic patients consecutively admitted to seven hospitals and mental health centers over 3½ years. Results indicate that important symptoms were more severe in black than in white schizophrenic patients: black patients were more angry, impulsive, hallucinating, dysphoric, and asocial. A greater number of important symptoms were found to be more intense in rural than in urban schizophrenic patients: rural patients were more angry, aggressive, silly, negativistic, and uncooperative; but urban patients were more anxious, rigid, ambivalent, and asocial. (16 references)


The emotional styles of process and reactive schizophrenics were compared using 60 hospitalized schizophrenic patients. Upon admission, process schizophrenics were more depressed, hostile, anxious, distrustful, and withdrawn than reactive schizophrenics. Both groups changed as a function of time in the hospital but reactive schizophrenics changed more rapidly. On discharge, process schizophrenics, despite significant changes, were still described as unsociable, withdrawn, distrustful, and depressed while reactive schizophrenics more closely resembled the norm. The emotions profile index was shown to differentiate process from reactive schizophrenia upon admission with 75 percent accuracy.


Data from a 12-year followup study by the Boston State Hospital cohort of a National Institute of Mental Health-sponsored collaborative study of high-dose chlorpromazine for chronic schizophrenia is summarized. Followup was considered particularly valuable because the initial population was relatively homogeneous and representative of physically healthy, young, chronically hospitalized schizophrenic patients; repeated measures of
The association of depressive symptoms with schizophrenia is considered, and recent studies of this relationship are examined. Three types of depression associated with schizophrenia are discussed: pharmacogenic depression, akinetic depression, and postpsychotic depression. Studies which investigated the course of depressive symptoms in schizophrenia are cited. Results show a high frequency of depressive symptoms in schizophrenia, occurring whether patients are on neuroleptic medication or not, which tend to recur and to remit after treatment has begun. These findings suggest that depressive symptoms are an integral part of the schizophrenic syndrome and must share with schizophrenia common pathophysiological processes. The need for examination of the underlying relationship between depression and schizophrenia is required. (13 references)


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The effects of duration of problem drinking, aging, and the presence of a diagnosis of schizophrenia on the neuropsychological test performance of hospitalized alcohol abusers was studied. One hundred and eighty male inpatient alcohol abusers were assigned to one of 12 experimental groups categorized by duration of drinking (long and short), age (younger, middle-aged, and older), and diagnosis of schizophrenia (present or not). Test performance of subjects was measured by factor scores from factor analysis of Swierbinsky's Modified Halstead-Reitan Neuropsychological Battery, scores on nine tests from the battery which are related to alcohol abuse, and Wechsler Adult Intelligence Scale performance and verbal intelligence differences. Alcohol abusers showed significantly altered neuropsychological test performance in association with duration of problem drinking and age, but not with diagnosis of schizophrenia. Factor scores were found to be more useful in identifying the differential effects of duration of problem drinking and aging than the test scores. Alcohol abusers show some neuropsychological deficits similar to premature aging; however, alcohol abuse impairs verbal memory function while aging does not.


In a 2-year period, 186 patients were admitted from Heathrow Airport to the nearest psychiatric hospital. Affective illness was related to time zone change. Depression was diagnosed significantly more often on flights from east to west; east to west versus west to east; and north to south, combined with south to north versus east to west. Hypomania was inversely related to depression in an east-to-west comparison. No other associations with direction of travel were seen in other diagnoses. Ninety-three patients (50 percent) were diagnosed as schizophrenic; 24 of these had been aimlessly wandering. Twenty patients had been admitted at least once before under similar circumstances. Schizophrenic patients from Heathrow constituted 20 percent of the total number of schizophrenic patients admitted to the hospital during the study period. (20 references)

6692. Leiter, E. (Bronx Psychiatric
signs, delusions, and affective symptomatology, neurological soft disorder (subtype diagnosis, formal in schizophrenic and affective thought disorder) were investigated.

Disturbances in voluntary motor activity and their relationship to symptoms are considered. Schneider's diagnoses should not be unreservedly accepted. The choice of particular diagnostic schema of schizophrenia will be determined by its usefulness until some external validating criterion for this disorder is discovered.


The clinical value of first-rank symptoms of schizophrenia is assessed. Frequency of occurrence of these symptoms, their ability to differentiate between schizophrenia and affective disorder, the method of eliciting them, and the identity of symptoms are considered. Schneider's claims about first-rank symptoms find only limited support from the more recent literature. However, these studies rarely acknowledge the problems of defining and eliciting these symptoms, and their conclusions should not be unreservedly accepted. The choice of particular diagnostic schema of schizophrenia will be determined by its usefulness until some external validating criterion for this disorder is discovered. (15 references)
tialized chronic patients is frequently severe and often neglected. Dental problems may provide useful information for psychotherapy and might be very influential in the rehabilitation process. The psychodynamics of dental and gum pathology in the hospitalized patient population and their implications for psychotherapy, management, and rehabilitation are discussed. (13 references)


Spontaneous involuntary movement disorder was assessed in 411 hospitalized patients with chronic schizophrenia. 47 of whom had never taken neuroleptic medication, using two standardized recording techniques. The prevalence of abnormality depended on the severity criteria but was high, with half of the sample on the Abnormal Involuntary Movement Scale and two-thirds on the Rockland Scale rating 3 or more on one item or more. Comparison of those with and without a history of neuroleptic treatment showed few significant differences in prevalence, severity, and distribution of abnormal involuntary movements. It is concluded that spontaneous involuntary disorders of movement can be a feature of severe, chronic schizophrenia unmodified by neuroleptic drugs. (53 references)


Numerous studies of schizophrenics have defined a dominant, overprotective, but basically rejecting mother as the schizophrenogenic mother. While such a maternal style has been incriminated as a causal influence in the development of schizophrenia and/or a response to schizophrenia or prodromal schizophrenic disturbance in a child, case-control studies raise doubt as to whether such a maternal style is overrepresented in the families of schizophrenic patients. The evolution of the concept and its critical evaluation, principally by American workers, is reviewed and integrated with British studies on expressed emotion. The British studies have looked principally at course rather than onset of schizophrenic disturbance and have demonstrated that exposure to high levels of expressed emotion in a key relative is predictive of schizophrenic relapse. It is suggested that the major components of expressed emotion—critical comments and overinvolvement—parallel the rejecting and overprotective characteristics imputed to the schizophrenogenic mother in the literature. While expressed emotion has been shown to predict relapse, causality has not, as yet, been demonstrated. Several noncausal links are explored. Because such research may promote key advances in the clinical management of schizophrenic patients, the review draws attention to the way in which findings from the regions complement each other. (51 references)


Minnesota Multiphasic Personality Inventory (MMPI) confusion, schizophrenia, and hypomania scales were compared for 30 white and 20 black inpatients at a mental health center. Nonsignificant t-ratios were found for males and females on these scales, and data for the sexes were combined into racial groups for analysis. No significant differences between the two racial groups were found. The homogenized nature of this hospitalized population may account for this finding. It is suggested that further exploration of racial bias in the MMPI should continue to focus on matching groups for psychopathology. (2 references)


To explore the possibility of a mutual exclusive relationship between schizophrenia and certain psychosomatic disorders, 354 adult schizophrenia patients, both acute and chronic, were studied for lifetime prevalence of peptic ulcer, bronchial asthma, neurodermatitis, and rheumatoid arthritis. Significant evidence of mutual exclusivity was found only in the case of peptic ulcer in the overall sample. Prevalence was higher in younger, more acute patients than in older, chronic patients, but this finding was difficult to interpret. Parallel inquiry into the prevalence of schizophrenia and the same disorders among close family
members of the patients yielded inconclusive results. (3 references)


Empirically defined and statistically independent concepts of emotional range, mobility, appropriateness, and communicability were rated by 30 professionals and paraprofessionals from special videotapes of 22 chronic schizophrenic subjects. Reliability of the ratings, measured by correlations among and across parameters and rater types, was notably better than that of the same raters using traditional subjective clinical judgment. There was little disagreement among psychiatrists, psychology interns, junior medical students, or social workers/nurses, nor were any of those groups significantly more reliable than the average for all raters. Significant trends toward low reliability of the appropriateness parameter are pointed out and possible clinical relevance is discussed. (7 references)


Research indicates that patients do not hold delusions with as fixed a certainty as has been believed. Confrontation with reality may have an important role in the evaluation and treatment of delusional patients. Four factors may help predict the value of reality confrontation in a given clinical situation: (1) how understandable the delusion is in the context of the patient's life, (2) the degree of conviction with which the patient holds the delusion, (3) the phase in development of the delusional beliefs, and (4) the patient's diagnosis. (15 references)


Suicide prevention is one of the most serious problems in the management of schizophrenic patients. To enhance the ability to assess suicide potential among hospitalized schizophrenic patients, three very similar schizophrenic men who committed suicide over a period of 18 months were studied at a medium-sized state mental health facility in central Illinois. (9 references)


The relationship between the imagery contained in the delusions and hallucinations of schizophreniform disorder and various cultural renewal myths was examined. It is suggested that schizophreniform disorder may have a psychological etiology and may be a constructive, integrative process, and that the ideation in such integrative processes is analogous to cultural renewal themes. Case data were obtained during Jungian existential individual therapy sessions with hospitalized patients. Subjects' imagery took the form of various myths of renewal, and the ideation appeared to be associated with psychological developmental issues and problematic interpersonal relationships. Contrasting interpretations of the data are also discussed. Limitations include the continuing debate about the differential diagnosis of schizophrenia and schizophreniform disorder and an inability to attribute the results to any specific therapeutic procedure. (19 references)


Volitional auditory imagery and spontaneous imagery/fantasy are examined in schizophrenic vs. nonschizophrenic psychiatric inpatients. Imaginal aspects of schizophrenia are also studied with regard to concurrent presence or absence of hallucination. Comparisons of imaginal function between diagnostic groups and among hallucinatory subgroups turned up few significant differences. Findings do not support the Mintz and Alpert enhanced vividness model of schizophrenic hallucination, but do provide some support for an imagery deficit model. (9 references)


Significant differences in handedness patterns between groups of psychi-
schizophrenia. (10 references) During the early part of treatment for deaths are more likely to occur before death. It is suggested that such hallucinations and delusions shortly suicide attempts, and relapses with disturbance present. Clinical features of the suicides include irritable outbursts, histories of previous suicide attempts, and relapses with hallucinations and delusions shortly before death. It is suggested that such deaths are more likely to occur during the early part of treatment for schizophrenia. (10 references)

The relationship between severity and type of psychosocial stressors and major mental disorders was investigated in data for 247 patients with major depressive disorder. 247 patients with schizophrenia, and 112 patients with schizophreniform disorder. Stressors were classified on the basis of an entrance or exit from patients' social field, desirability, control, number of life change units entailed, and area of life affected. These variables were compared across diagnostic groups for individuals with and without associated personality disorders. Consistent with previous findings, patients with major depressive disorders experienced a greater number of stressors, undesirable events, entrances, and uncontrollable events than patients with schizophrenia. For schizophrenics, the highest level of adaptive functioning in the past year and level of severity of stressors experienced before episode onset were positively correlated, while for major depressives the correlation was negative. The results for schizophreniform disorder were equivocal, with similar results to major depression on some stressor dimensions, and midway between the other groups on others. Implications for social work practice and further research are discussed.

The relationship between work performance and diagnosis was studied in a 47 hospitalized patients who fit New York Research Diagnostic Criteria (RDC) for chronic schizophrenia. The other diagnostic systems used were the flexible system, Feighner criteria, New Haven Schizophrenia Index (NHSI), and Taylor Abrams (TA) criteria. The NHSI, the broadest system examined, fit all of the patients studied. In contrast, only 30 patients (63 percent of the sample) were diagnosed schizophrenic using TA criteria. When the Strauss-Carpenter prognostic scale was used, patients who fit TA criteria for schizophrenia did not differ from the remainder of the sample in the prognostic scores. In addition, the two groups did not differ in the

A retrospective, case-register-based inquiry on 39 first-admission schizophrenics is presented. Three of the 39 schizophrenics committed suicide. It is noted that schizophrenic patients often talk about, and attempt, suicide. Of the four natural deaths, one exhibited evidence of severe self-neglect and another was not accurately diagnosed for diabetes mellitus due to the mental disturbance present. Clinical features of the suicides include irritable outbursts, histories of previous suicide attempts, and relapses with hallucinations and delusions shortly before death. It is suggested that such deaths are more likely to occur during the early part of treatment for schizophrenia. (10 references)


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familial rate of schizophrenia spectrum disorders. The usefulness of narrow versus broad diagnostic criteria in schizophrenia research is discussed. (33 references)


Questions of the possibility of diagnosing mental disorder in adolescents were examined. Judgments of specific responses from the Rorschach, the Wechsler Adult Intelligence Scale, and the Whitaker Index of Schizophrenic Thinking (WIST) were made by 10 expert clinicians regarding 12 adolescents aged 16 to 19. Judgments were surprisingly accurate in discriminating among schizophrenics, nonschizophrenic hospitalized adolescents, and a normal control group. Results indicate that schizophrenic thinking is not necessarily characteristic of adolescents and that information from the WIST may be helpful in identifying schizophrenic adolescents. (34 references)


Criterion-based diagnoses (DSM-III) was compared with clinical diagnoses (DSM-II) for 102 psychiatric inpatients. The introduction of specified diagnostic criteria represented a refinement of existing diagnostic practices rather than a qualitatively different approach to diagnoses; however, in the schizophrenia and affective disorder categories, nonwhites and women were more often assigned to a worse prognostic category by the DSM-II system than were white men with similar symptoms. The introduction of DSM-III criteria may ensure more appropriate diagnosis and treatment for nonwhites and women. (22 references)


Neuropsychologists are critical of the continued popularity of single neuropsychological tests, such as the Bender-Gestalt Test (BGT), when more comprehensive test batteries are available. Such criticism ignores evidence favoring a general effect of brain dysfunction and the reality of the typical testing situation in which psychologists are asked to screen for organicity in psychiatric settings that have high base rates for schizophrenia. Extensive batteries of neuropsychological tests are appropriate for detailed neuropsychological evaluation; however, the brief and inexpensive BGT is more appropriate as a screening test for the most typical referral for differential diagnosis. (21 references)


First-rank symptoms have assumed an important role in the assessment of schizophrenia. Only recently, however, have there been empirical studies of their reliability and validity. This study examined the relationship between first-rank and other psychiatric symptoms in 100 schizophrenic patients. The results are consistent with other research reports suggesting that first-rank symptoms do not represent a homogeneous group of symptoms within an individual patient. (10 references)


Psychiatric manifestations were studied in 72 right-handed amputees in the post-operative period. In addition to the phantom limb phenomena observed in nearly four-fifths of the cases, nearly two-thirds had psychiatric symptoms in the form of depression (45 patients), anxiety (38), crying spells (38), insomnia (34), loss of appetite (23), suicidal ideas (21), and psychotic behavior (2). Right-arm amputees experienced phantom phenomena and insomnia significantly more often than left. Nearly one-fifth of the cases were diagnosed as psychotic depressive reactive, two-fifths as depressive neurotic, and two—both right upper limb amputees—as schizophrenic. (15 references)

Several studies have shown that different systems for diagnosing schizophrenia produce diagnoses with relatively low agreement. This, however, does not necessarily imply that the different systems are identifying conceptually different diagnostic groups. They may, in fact, identify a single entity, but with different degrees of accuracy. Using multiple diagnostic systems, 196 inpatients were evaluated. The pattern of relationship among the diagnoses was studied with latent class analysis, a statistical methodology not previously applied to these types of data. Results indicated that the diagnoses of the Research Diagnostic Criteria, Flexible 6, Schneider, and 1978 Taylor and Abrams diagnostic systems all estimated a single underlying diagnosis. The Taylor and Abrams system identified this core diagnosis with high accuracy. The results also suggest that blunted affect and absence of an affective syndrome are related to latent class schizophrenia, while the presence of only nonspecific delusions and/or hallucinations is not related. The appropriateness of the latent class definition of schizophrenia in selecting patients for research is discussed. (18 references)

Epidemiology


As community support programs for the chronically mentally ill expand, it becomes increasingly important to determine the number of individuals qualifying for these services. Although national prevalence data are currently available, they have only limited usefulness for program planning at State and local levels. Because of the distinctive circumstances affecting each community's chronically ill population, their number, and their need for services, three methods to identify a patient cohort that approximates the local prevalence of persons needing community support programs are proposed. The first method identifies persons who have been hospitalized previously and who currently require outpatient psychiatric care. The second identifies persons previously hospitalized who require another hospitalization during a specified period of time. The third method identifies persons who are currently in outpatient treatment with a diagnosis of schizophrenia. Choice of method depends on definition of chronic mental illness, type of data available, local treatment philosophies, and support system structure. (15 references)

The Family


The content of special 30-minute discussions among each of 30 acute male schizophrenics and their parents was analyzed to determine features of parental personality. Two years after discharge, 13 subjects were readmitted. Compared with those not readmitted, fathers expressed more outward-directed hostility and hostility projected onto others, and mothers expressed more inward-directed hostility as well as guilt anxiety and shame anxiety. Both parents were more emotionally unstable during the course of the discussion. The emotional interaction between mothers and sons was of symmetrical type in contrast to the complementary type shown between mothers and sons who had not been readmitted. (25 references)


To test the hypothesis that schizophrenia can be differentiated on the basis of family history, the authors compared two matched samples of 20 patients each, distinguished by the presence or absence of family history of schizophrenia. Family history was not associated with onset characteristics, symptom picture, phenomenological subtypes of schizophrenia, prognostic indicators, or global assessment score for psychosocial functioning. (9 references)


An ego-oriented family approach to severe psychiatric disturbance in one family member is discussed. The dynamics of family therapy, which utilize the potent influences of the family as experienced in childhood, also use the family as it is today with its mature responsibilities. Cases are
presented to illustrate treatment of schizophrenic and psychopathic patients within the family approach. Schizophrenic patients who were too threatened by the hospital and the psychiatrist to participate in therapeutic interviews were allowed to have a relative present. This method was extended to the treatment of patients with psychopathic personalities. The initial purpose in these experiments was to increase the control over the patients’ behavior between interviews. The use of these methods in over 100 cases yielded encouraging results. Family therapy represents a combination of psychoanalytic dynamics, a practical application of social psychiatry, and some of the techniques of psychobiology. The approach gives an understanding of psychopathology and psychotherapy that may be an added aid in these difficult fields of study.

Genetics


In a study of genetic models of schizophrenia, multiple threshold models of inheritance were applied to a large sample of Franz Kallmann's (1938) pedigree data on schizophrenia. Paranoid and nonparanoid subtypes are represented in the models at different thresholds on a continuum of genetic environmental liability. Single major locus and multifactorial polygenic inheritance were ruled out as modes of transmission. These findings suggest that the paranoid/nonparanoid dichotomy cannot be used as a genetic threshold determinant in the population studied. (56 references)


In a study of morbidity risk and genetic transmission in schizoaffective illness, schizophrenia, and affective disorders, data were analyzed for first-degree relatives of schizoaffective proband and matched controls, bipolars, unipolars, and schizophrenics. The familial pattern of affective and schizoaffective subtypes of schizoaffective disorder resembled the familial pattern of affective and schizophrenic probands, respectively. The overall risk for the spectrum of schizoaffective and affective disorders was higher among relatives of schizoaffective manic as compared to relatives of schizoaffective depressive probands, although the difference was not significant. When tested for consistency with multiple threshold hypotheses of genetic transmission, schizoaffective illness qualified as neither a more extreme form of affective illness nor as a disorder that occupies an intermediate position between bipolar and unipolar disorders or is genetically milder than affective disorder. The implications of diagnostic subtyping for genetic research in the major psychoses are discussed. (24 references)

6723. McGuffin, P.; Holland, A.; and Reveley, A. (No address given) Identical triplets: Non-identical siblings, identical triplets aged 28 were discordant by major Kraepelinian type of psychosis. Two had been diagnosed schizophrenic while the third was diagnosed manic depressive. Re-evaluation of their illnesses using standardized methods and diagnosis by blind raters suggested that the discordance was not due to simple misdiagnosis or different diagnostic bias between psychiatrists. These triplets illustrate the shortcomings of a strictly applied Kraepelinian dichotomy and show that a genetic perspective is important in attempting to resolve the problems inherent in classifying atypical psychoses. (20 references)


Ten studies on identical twins reared apart are reviewed to determine if they substantiate a genetic component of schizophrenia. These studies have not eliminated probable social causes of schizophrenia in the twins, and therefore the origins of schizophrenia remain unresolved. (3 references)


Hypotheses proposed to account for the unusual seasonal birth patterns observed in schizophrenic populations were tested. The competing hypotheses were tested by retrospectively studying the season of birth in 975 schizophrenic subjects divided according to family history of psychiatric illness. Information was analyzed from case notes, item
after continued drug treatment. Early changes in laboratory performance are useful predictors of clinical outcome change, and early plasma level, all would parallel findings on subjective response to a test dose, early clinical change, shown for early EEG changes, this in patients. If predictive value could be sustained dosage in schizophrenic leptics in normal volunteers and similar after single doses of neuroleptics. Slow alpha waves. EEG profiles are outcome than those with high voltage activity had a better deficit. EEG test dose response to clinical effect. Biological Psychiatry, 17(5):599-603, 1982.

Prognosis

Can early electroencephalogram (EEG) changes produced by antipsychotic drugs predict the outcome of treatment and aid selection of the right drug, even perhaps the right dose, for a schizophrenic patient? Studies on chronic dosage showed that schizophrenic patients with low voltage fast $\beta$ activity had a better outcome than those with high voltage slow alpha waves. EEG profiles are similar after single doses of neuroleptics in normal volunteers and sustained dosage in schizophrenic patients. If predictive value could be shown for early EEG changes, this would parallel findings on subjective response to a test dose, early clinical change, and early plasma level, all useful predictors of clinical outcome after continued drug treatment. Early changes in laboratory performance tests were not predictive. (17 references)


In a prospective study of offspring of schizophrenic mothers, perinatal complications reported in midwife protocols were analyzed for those offspring who, as adults, were diagnosed as schizophrenic, borderline schizophrenic, or as not suffering from mental illness. The schizophrenics were found to have had the most complicated births, and the borderlines were found to have had the least complicated births. This difference is interpreted in terms of a diathesis/stress model. It is proposed that birth complications can decompensate borderline individuals toward schizophrenic breakdown. (19 references)


Twenty-two schizophrenic patients who presented memory deficit at admission were followed up over a 30- to 40-year period along with 178 schizophrenic patients without memory deficit. Memory deficit at admission predicted poor outcome in marital, occupational, and psychiatric outcome categories. The symptoms and signs of memory deficit were assessed without knowledge of the patient’s status at admission. A significantly higher proportion of the memory deficit group continued to show both symptoms and signs of memory deficit at followup. Thus, the presence of memory deficit in schizophrenia was a highly stable variable across a 30- to 40-year period. Implications of the preliminary results of this study are discussed and future studies are suggested. (28 references)

Psychiatry and the Law


The trial testimony of a psychiatrist in a murder trial where a plea of not guilty by reason of insanity was entered, is presented with analyses by psychiatrists Donald Lunde, Selwyn Smith, and Joseph Finney. The issue revolved around the ability of a defendant who had been diagnosed as schizophrenic to take responsibility for her acts. In the testimony, it is suggested that a diagnosis of schizophrenia is independent from a determination that a person can control his or her actions and that mental illness should not be considered a disease. Analyses of the testimony suggest that idiosyncratic views on psychiatry were presented, rather than an expert interpretation of the facts of the particular court case. It is also suggested that, if the defendant in the case had had adequate representation, a finding of not guilty by reason of insanity would have resulted. (3 references)
Psychological Theory


Using two psychodynamic conceptualizations of the paranoid mechanism—Freudian psychoanalytic theory, and the shame/humiliation theory advanced by Arieti and Colby—an investigation was conducted of whether paranoid schizophrenics can be distinguished from nonparanoid schizophrenics on the basis of specific emotional conflicts, and whether these conflicts are directly related to the cognitive pathology manifested by this diagnostic group. Exposure to shame/humiliation conflict produced no significant increases in psychopathology within the paranoid schizophrenic group. Upon exposure to homosexual conflict, only paranoid schizophrenics responded with an increase in concrete thinking pathology. The paranoid subjects showed no significant homosexual activation effects in any of the seven other cognitive symptoms.

Treatment

6731. Alanen, Y.O.; Rakkolainen, V.; and Laakso, J. (Turun Yliopisto Dept. of Psychiatry, University of Turku, Kurjenmaantie 4, SF-20700 Turku 70, Finland) Illness models of schizophrenic patients are described with reference to the results of inpatient and outpatient treatment of 100 schizophrenic patients (ages 16 to 46) in Turku, Finland. The most desirable treatment approach incorporates elements of all three models. The medical model for schizophrenia considers the disease as a disturbance which can be interpreted with psychological concepts. The transactional model addresses patient-centered and illness-centered issues and views schizophrenia as an illness rooted in the patient’s past which has a network of complex interrelationships with the patient’s present. Each of these treatment methods is sufficient for treating schizophrenic psychoses. However, because of the complex interrelationships associated with schizophrenia, an integrated treatment model brings together all three models in response to the patient’s needs. Sixty percent of the cases discussed showed improvement as defined by established therapeutic guidelines, with one-third of the patients treated medically over a period of 2 years, and another third receiving individual therapy at least once a week, including family therapy. (4 references)


Long-acting lithium carbonate was administered orally twice a day (once in the evening and once in the morning) to three groups of patients (n = 64) with schizophrenia and schizoaffective psychoses, and the efficacy was compared. The maximum daily dose of the drug did not exceed 2,000 mg, giving a maximum lithium level in the blood plasma of 0.7–1.3 millimoles per liter. The average doses were 1,500 mg per day in the first group, 1,295.4 mg in the second group, and 1,470.5 mg in the third group. Results show that it was sufficient to administer the drug once a day, preferably in the morning.


Brief hospitalization policies have accompanied the deinstitutionalization movement, although length of inpatient stay in facilities under State and local administration remains quite varied. A 1-year study of 119 chronic schizophrenic patients hospitalized in New York City between 1977 and 1979 revealed that length of inpatient stay had no relationship to subsequent hospitalization, treatment compliance, or clinical or social functioning in the community. Rather, a patient’s postdischarge experiences with treatment and significant others in the community were critical in determining subsequent use of inpatient services. This finding points to the need for wider application of briefer hospitalization policies for dischargeable chronic schizophrenic patients. (20 references)

A case of neuroleptic malignant syndrome is presented in which treatment with dantrolene sodium was associated with improvement. Further exploration of this treatment is proposed. (10 references)


Pimozide, a specific dopamine blocking agent, was compared with chlorpromazine in a 4-week double-blind study of the treatment of 40 schizophrenic patients newly admitted to hospital through the emergency room. Dosage was adjusted according to therapeutic effect and during the final week ranged from 10–70 mg/day for pimozide and 600–1,500 mg/day for chlorpromazine. Pimozide was found to exert less overall therapeutic effect than chlorpromazine, particularly in highly agitated patients. Women responded better to either treatment than men. A weighted mean of the doses given to male and female patients during the final week suggests that, in the treatment of acutely ill patients, the mg dose equivalence of pimozide in terms of chlorpromazine is approximately 1:25, considerably lower than estimates from maintenance studies. Pimozide induced significantly more parkinsonian symptoms but fewer autonomic side effects than chlorpromazine. The weaker presynaptic dopamine blocking effect of pimozide might be responsible for its reduced potency in the treatment of acute schizophrenic symptoms. (30 references)


A community-based residence for male adolescents with autism and schizophrenia who require intensive training in basic life skills is described. At the Children’s Psychiatric Center–Community Mental Health Center, Eatontown, N.J., group therapy is used to promote eventual semi-independent living. Mastery over idiosyncratic behavior and learning how to obtain and hold a job constitute the main achievements of intervention. The inculcation of public behavior by the children is the preliminary task, and bizarre behavior is not tolerated in the community. Residents are exposed to constant repetition of basic house rules related to daily living. The housefather has a central role in the residence as a stable, warm figure who has set a standard and holds a job. Findings from these studies should guide political positions and be incorporated into training a new generation of psychiatric practice. Some of the accepted “truths” of psychiatric practice are questioned such as “more is better” and “inpatient care is preferable to outpatient care,” and programs based on controlled studies of both clinical outcome and cost efficiency are advocated. Findings from these studies should guide political positions and be incorporated into training a new generation of psychiatrists who will continue to explore, discover, and refine treatment approaches toward a new definition and delivery of appropriate care. American Journal of Psychiatry, 139(7):908–909, 1982.

Relapse in four patients identified by retrospective history as having had affective episodes at one time in their life and schizophrenic episodes at another was studied when lithium was substituted for antipsychotic medications for 13 months. Results show two patients relapsed on lithium alone, one relapsed on no medications, and one did well on lithium alone. The phenomenology observed in the three relapsing cases includes mania (as defined by Research Diagnostic Criteria) rapid onset with confusion, sexually regressive behavior, and improvement with reinitiation of antipsychotic medication. Caution is advised in the use of lithium alone for patients fitting this diagnostic description. (10 references)


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Direct Confrontation Psychotherapy was analyzed in an investigation of verbal, paralanguage, and nonverbal processes occurring between patient and therapist during four treatment sessions. Four psychotherapy sessions of a chronic schizophrenic and direct confrontation psychotherapist were videotaped beginning with the first therapy session, followed by sessions 1 month, 1 year, and 2 years later. The results indicate interpersonal communicative changes in the schizophrenic patient over the 2-year period, while the therapist remained consistent. Changes in the schizophrenic patient's verbal content revealed a more varied use of complete sentences, more dynamic use of paralanguage, and a more integrated use of nonverbal movement expressions. The methods used by the psychotherapist are described in relation to the theory of Direct Confrontation Psychotherapy. This study is the first complete theoretical and descriptive representation of Direct Confrontation Psychotherapy.


A pilot study of an alternative to maintenance medication for stable schizophrenic outpatients was conducted. Doses in 19 patients were gradually reduced to zero over 8 weeks, and medication was then given only when a patient experienced early signs of relapse. The patients attended weekly group therapy and were closely monitored for prodromal signs, especially at times of stress; significant others helped observe the patients. Five patients experienced increased symptoms during the drug washout period and were dropped from the study; of the remaining 14, 10 remained stable on the intermittent medication protocol. (20 references)


The response to electroconvulsive therapy (ECT) or no ECT at two levels of chlorpromazine was studied in a 2 X 2 factorial experiment on 60 acutely schizophrenic patients hospitalized for 6 weeks. ECT enhanced the therapeutic response at the 300-mg level of chlorpromazine but neither ECT/chlorpromazine combination offered any significant therapeutic advantage over 500 mg of chlorpromazine alone. (13 references)


New uses are still being discovered for a number of psychotropic agents—e.g., the efficacy of the tricyclic antidepressants for panic disorder and agoraphobia with panic attacks; the use of the monoamine oxidase inhibitors for the above disorders and for atypical depression and hysteroïd dysphoria; the use of propranolol for anxiety disorders and for uncontrollable violent outbursts; the anti-anxiety and antipanic effects of clonidine; and the usefulness of lithium in treating schizophrenia and schizoaffective disorder and for emotionally unstable character disorders. In addition to strengthening the therapeutic armamentarium, the discovery of new drug response patterns helps generate or strengthen hypotheses about the pathophysiology of various psychiatric disorders. (47 references)


The question whether psychotherapy can add appreciably to the treatment of schizophrenic patients who are concurrently receiving medication when the patients are treated by A or B therapists was studied. Forty-two patients diagnosed as schizophrenics and matched for age, sex, education, and socioeconomic status were randomly assigned to one of three treatment conditions: medication and psychotherapy with A therapists, medication and therapy with B therapists, or medication alone. Process and outcome for all three groups were evaluated by therapist, patient, and a family informant. Analyses of covariance computed for the various outcome measures indicate considerable clinical support for the hypothesis that psychotherapy can add appreciably to the effects of medication for schizophrenic patients if the therapists are differentiated by type. However,
there were no significant differences in the process analyses of the therapeutic relationships of the A and B therapists with their patients.


To analyze the effects of medication groups, a mental health clinic tested 30 patients with a primary or secondary diagnosis of schizophrenia. The patients were randomly selected from the four medication groups at the clinic. Data on three treatment variables—rehospitalization, average daily dosage of medication prescribed (in chlorpromazine equivalents), and number of appointments—were compared for the 18 months before and the 18 months after establishing the groups. Such an approach enabled the patients to serve as their own controls. The rehospitalization rate markedly decreased from 27 percent before the groups were established to 10 percent afterwards. An unexpected finding was a concomitant decrease in the amount of medication prescribed. Only two patients exhibited tardive dyskinesia. Total kept appointments nearly doubled with the medication groups. (1 reference)


Electroconvulsive therapy (ECT) is an effective psychiatric treatment for severe depression, mania, catatonic states, and, to a lesser degree, some schizophrenias. Complications are minimal and the risk of death lower even than that for inadequately treated depression. However, some medical centers in the United States do not use ECT. The neurochemical mechanisms that underlie ECT remain unknown, but a cerebral seizure is essential. The average number of treatments is seven, spread over 2 to 3 weeks. All candidates for ECT should undergo a complete medical evaluation and give informed consent. The current use of ECT, clinical indications and contraindications, complications, techniques, mechanisms of action, and some related ethical and legal issues are presented. (15 references)


Pimozide and chlorpromazine were compared in a 4-week double-blind study to test the hypothesis that pimozide, a powerful dopamine receptor blocker, is more effective in treating acute schizophrenia than chlorpromazine. Twenty male and female subjects hospitalized for acute schizophrenia were treated on an individual titrated dosage of either 300 mg of chlorpromazine or 10-70 mg of pimozide. On the Brief Psychiatric Rating Scale, the chlorpromazine subjects significantly improved after 1 week, whereas the pimozide subjects showed no statistical improvement until week 3. By the end of the treatment period, no significant differences were apparent between the two groups. On the Clinical Global Impression Scale, a significant difference between groups was found at week 4—a greater improvement in the chlorpromazine subjects. Fifteen adverse reactions were noted for the pimozide group as compared to eight for the chlorpromazine group. It is concluded that chlorpromazine has an earlier onset of action than pimozide in acute schizophrenia, despite the fact that it has a weaker effect on the dopamine receptor than pimozide. The findings suggest the need for a critical reexamination of the dopamine theory of schizophrenia. (13 references)