THE PRESCRIPTION OF TREATMENT FOR CHILDREN

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The Prescription Of Treatment For Children

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Introduction: Every Child Is Unique and Imperfect

Every child is the sum total of all the interrelationships between his physical being and his personal experiences in an environment. There is a trend at present to see all behavior in terms of social-cultural factors. Problem-behavior patterns are too easily explained away in terms of the child's experiences and his environment; and any endrogenous problems—those connected with his body and its organs, or even his individual identity as a person—are ignored and even denied. The medical model is in low repute.

Social-cultural influences do exist, and they have always been recognized in form similar to the present influences in the communities we know. Poverty, downgrading of minority groups, anomie, inner-city or rural deprivation, and antagonisms between peoples have been observed through history; and violence, taboos, religious conflicts, and identity crises occur in all societies (Dunham, 1971; Mead, 1939). These things alone do not make the child, however. They merely focus on a given child who has his own phylogenetic and ontogenetic history, his own person and body and medical record. The possibilities of deviations or simple differences from other

persons—of pathologies, of defects, of unique functionings—are infinite, and they are always present in everyone. In some persons they may be accentuated or distorted or especially vulnerable to external stresses. But in any case the two areas—internal and external—cannot be separated; and this interrelationship does more to support and advance the individual than it does to inhibit, disturb, or destroy him, since it offers more opportunities for compensation and growth. The individual is unique and remains uniquely himself in all his relationships throughout his life. This is true regardless of and indeed because of the family social-cultural influence and also because of such medical and psychiatric (treatment) influences as Dubos (1972)has emphasized.

It behooves a professional to whom a child has been referred, because of behavioral or emotional or neuropsychiatric problems, to determine as much as he can about the unique combination of endogenous problems in the child, as well as the exogenous ones that always exist. He may quickly find some obvious problem, but he should never feel satisfied that this will lead to an easy solution. For the one child referred to him with this problem, there are undoubtedly many others with the same condition and from a similar social-cultural environment who are not being so referred because the condition in itself does not necessarily lead to problem behavior.

Every child has deviations in every area of functioning, hut has stronger

drives for normal development and compensations. When a child is referred for professional attention, it must be assumed that there is something wrong in every area of functioning: at the level of congenital or developmental organic brain impairment; of minimal or gross brain damage; of maturational lags; of neurotic defense mechanisms; of situational stresses in the family; and of the school or social-cultural environment. What is also true is that every child called "normal" also has defects, deficiencies, pathologies, or disorders in all these areas. However, most children are still able to cope and function within the normal range of behavior. The severity of the disorders is a factor determining this ability, as is the child's innate capacity to develop so that he can function and compensate. The drive for normalcy tends to overcome the ever-existing interrelated disorders. In some children the disorders are not evident; other children may cope with, compensate for, or "outgrow" their difficulties with or without help. Needless to say, these processes may be facilitated by a more positive environment, situational support, or an enriching rather than a depriving culture.

Different schools of thought tend to emphasize one area of disorder and its possible compensations while ignoring others. Thus a psychodynamic school may see the following case from the point of view of a sick mother who infantalizes her child: A four-year-old child of a schizophrenic mother is still being carried by her. He walks clumsily, is spoon-fed, is not toilet trained, and does not talk. If we assume that this sick mother has infantalized a potentially

normal child, we may fail to note that the child shows real signs of organic defect, such as a head circumference of 19 inches (48.26 cm.), simian folds in the hands, general small size, and poor muscle tone. Though there is a lack of speech, there is some understanding of simple and pertinent language. The child cuddles up for attention and responds to smiles: although he is retarded, even mentally defective, he is not autistic.

Thus, while in fact the mother is mentally sick and—without a husband or father for the child—dependent on public support, she may nonetheless be giving the child good care for his special needs. Further, she might well be able to continue to do so for some time, under psychiatric and social welfare supervision of both herself and her child, thus making institutionalization unnecessary. The child will probably gain speech, be classified as a high-grade defective, and be able to do simple routine work as an adult in a protected situation. But before this social and educational and psychiatric treatment is prescribed, there needs to be a mobilization of facilities that will afford knowledge and experience in the fields of pediatrics, neurology, psychiatry, electroencephalography, psychopharmacology, and social welfare; and there needs to be an availability of opportunities for both mother and child in the community and in education and recreation. The program may need to be changed at each developmental epoch in the child's life (school age, puberty, adolescence, adulthood), or when there is a change in the mother's condition, or at such time as society changes its attitude and

programing for its deviate members.

Thus, while we emphasize that some degree of pathology may be expected to be present in every area and cannot be ignored, it must also be realized that positive developmental trends, compensations, and coping mechanisms always exist as well, and that they can be appreciated and utilized. For the majority of human beings these positive factors outweigh the negative. This is evolution.

Each child is unique in spite of his pathology and because of it. No treatment will change the uniqueness of the individual. It is striking that if one has known and remembered a disturbed child, one will still recognize him and know how to communicate with him in a follow-up visit when he is an adult, however sick he may have been throughout his life or however well he may have responded to treatment and life experiences.

We must conclude that there are no cures for personality disorders and psychiatric ills. *We* have learned this from many long-time follow-up or longitudinal studies of patients, treated or untreated, including those known from childhood. It is a universal experience that about one third of all psychiatric patients do quite well most of their life as functioning and satisfied persons; another third tend to be dependent but do fairly well part of the time; and the final third do not improve or may even regress,

regardless of treatment, care, or neglect (though some of these also make a pretty good adjustment to a well-regulated institutional environment). This is true whether the treatment has been nonspecific psychological, physiological, or milieu therapy, or some specific therapy for a pathology that is only a part of the total problem.[1]

Almost anyone who has ever successfully tried a treatment or therapy has experienced the conviction that it is their treatment that works, and they experience an almost omnipotent feeling that they can help another human being—especially a child in his troubles. But what is due the child is overlooked; it is forgotten that children are alive, plastic, and in a process of development and growth. The strongest drive in the human child or any young living thing is the drive toward growth, learning, repair, coping, compensating, and responding to the environmental stimuli with endogenous processes of all kinds. Children are quick to accept every offer of help, every clue, every stimulus that will promote their tendency toward normalcy. There are no cures for personality or psychiatric disorders, but there are strong processes for self-adjustment and coping. This is part of the evolutionary process that can not be denied.

The Goal for Treatment in Children

The goal for treatment in children should be to enable them to respond

within the normal developmental pattern as quickly as possible, and to live as rich and full and normal lives in the here and now as they can. Childhood should not be seen as a preparation for adulthood. Childhood should never be sacrificed for the future. Immediate time and what can be done with it is the most precious possession of a child. Any experience that is missed in childhood is lost forever. If there is a quick method of treatment, it should always have preference over methods that require a longer time. Since drugs facilitate speed in treatment, they should be used as aids in tutoring, psychotherapy, or an institutional experience away from home. Two months of residential treatment in an institution is often preferable to one hour of psychotherapy a week while staying at home. An intensive residential tutoring program or a special class in a community school is preferable to only an hour a day from a "home teacher." Hospital care should not be prolonged; rapid discharge should be planned, even if it requires readmission for other short stays (Bettelheim, 1967; Bender, 1958). Every opportunity should be used to take advantage of the child's natural tendency toward growth, changed behavior, or even remissions at certain developmental epochs such as latency, puberty, and adolescence. It may be assumed that each of these epochs represents a new period—not of stress but of growth, adaptation, positive responses, and a renewed organization of vital forces.

The Numerous but Nonspecific Prescriptions for Treatment

How are we to arrive at a prescription for treatment? How can we make rules or patterns for such prescriptions? Not only is each child and each form of behavior disorder or psychiatric disturbance unique, but also each diagnostician, therapist, or consultant. Therefore the methods for prescriptions for treatment are almost as numerous as the individuals using them.

Winnicott, (1971) before he died, gave us a splendid description of his special form of therapeutic consultation. His background was psychoanalysis, and his special technique was the "squiggle game" in which he and the child contributed to an ongoing drawing as they related to each other and talked. Winnicott observed the child and made elaborate notes. A pediatrician before he was a psychoanalyst, he claimed that he remained a pediatrician always. He also emphasized that he was always conscious of the social pressures of the times in which he and the child lived. Winnicott was a creative and empathic man who could evaluate the whole child physically and psychically, in a social situation and a living relationship, and keep careful records. His contribution is important not because of the special technique he used but because his work emphasizes the value of a lifetime of experience.

The inexperienced must gain experience from observation, reading, and supervised work. To begin with, no examiner, consultant, therapist, or diagnostician—especially at the learning stage—should ever interview a child

or mother while keeping an outline or list of medical terms, in effect, between himself and the child. To begin with, there is no outline or list that can do justice to this process. More importantly, the adult who likes such things will always relate to and observe and be creative about the outline, but will be incapable of relating himself to the child or of drawing the child into a relationship with him. He will be utterly unable to observe the child while the outline is there. A trainee needs, firstly, to have the confidence that he can relate to a child, give the child something of himself, and get something from the child in return. Secondly, he needs to have as much knowledge about children and their problems as will make it possible for him to arrive at some conclusions about the child in question as a deviate from other children. Such knowledge can be gained only from life itself, from his professional education, from observing other experienced interviewers, from wide reading, and from repeated experiences in observing children under all conditions.

Some trainees, of course, may be in or have had a personal analysis; if so, the experienced analyst should have widened the vision, experiences, and knowledge of the student. Many beginners are under the supervision of an experienced child psychiatrist, psychologist, or other professional who, of course, enriches the beginner's experiences. Such a supervisor should interview children in the presence of the student, be present when the student conducts his own interviews, and discuss cases with him.

Groups of observers may be present when a child is interviewed, diagnostically and therapeutically, by an experienced professional. In my experience this is always accepted well by the child; it even enhances the relationship, the social experience, and therapeutic effects. But it sometimes traumatizes inexperienced students, unless they are warned in advance that it is good for the child and the total professional and educational experience.

Examination Procedures

One can, of course, go to the extreme of utilizing every possible test for deviations from the normal functioning of the child's central nervous system and brain. One can use clinical, electrical, X-ray, chemical, and chromosomal methods; psychological, intelligence-quotient, personality, educational achievement, and perception tests; psychiatric interviews, play observation (individually and in peer and family groups), and observation of the child in his normal environment or separated in a residential institution; and histories from the child's birth record and other hospital, home development, school, and community-activity records. But however valuable it might seem to collect everything possible, it should never be forgotten that such procedures may be very expensive for some, may interrupt the lives of people more than is justified, and may become too voluminous ever to be usable.

It is nevertheless true that any child who is disturbed enough to be

referred for professional consideration is entitled to a comprehensive history, interview, and observation and to appropriate test procedures. Every child psychiatrist should be trained to take his own histories, do his own mental-status and neurological examinations, do some simple psychological testing (usually of the paper- pencil type, such as drawing a person, or some simple school work), and observe some behavior. Every disturbed child should be seen in some relationship by more than one professional.

The psychiatric interview should explore the child's problem that led to his referral, and also his interpersonal relationships with family members and peers, school teachers and schoolmates, and community friends. It should explore his concepts of his body image, self image, and sex identity. It should explore his fantasy life through dreams, story-telling, television and movie stories, and spontaneous drawing. Causes for anxiety, especially, should be explored, as well as trends toward negativism. The child should be observed in action or motion in a play room or waiting room or as he enters the office. His body should be manipulated, at least during a neurological or physical examination, as far as the social relationship and the child permit. Experience alone makes it possible to know what to emphasize and what to neglect. An interview may be completed in twenty minutes, or it may go on for an hour and a half and still not be completed. Every such interview- should be a therapeutic or learning experience for the child. It is usually desirable for the mother or referring adult to be partly involved in the interview.

A child psychiatrist should be able to evaluate such common psychological tests as Wechsler's Intelligence Scale for Children (WISC, 1949), the Stanford-Binet or similar tests, the Vineland Social Maturity Scale (Doll, 1947), and some of the paper-pencil tests(Hammer, 1957): the drawing of persons (Goodenough, 1926); drawings of the family; the House-Tree-Person (HTP, Buck, 1947) test; and the Visual Motor Gestalt Test (Bender, 1938). There should be an interpretive understanding of personality projection tests such as the Rorschach test and the Thematic Apperception Test (TAT) and, possibly, the Children's Apperception Test (CAT) and Sentence-Completion tests. None of these tests should be left to the interpretation of another person—i.e., a psychologist— unless one knows the interpreter in question. A test of this type is no better than its interpretation. Unfortunately the same has to be said of a neurological examination and electroencephalograms (EEG), especially in children, unless there are very specific pathological signs that can be demonstrated—such as the intelligence level, on psychometrics; reflex or focal gross neurological signs, on the neurological examination; and focal or seizure signs, in the EEG.

Values of Repeated Interviews and Examinations

Every interview with a child should be a therapeutic and learning experience. This is a good reason why no child who has been referred for professional evaluation should be deprived of it, especially if he has been

removed from his usual routine and taken to a clinic or teaching center. He should never be left in doubt as to the reason for the trip and interview and tests.

There are reasons for the psychiatric interview, examination, and evaluation beyond the immediate diagnosis and prescription for treatment. It may be assumed in our modern medical practices that the child will return again to the same clinic or to some other similar setting, or that some member of his family will. The record becomes more valuable with each additional visit. One may even say that one sequence of examination, interview, psychological testing, EEG, and neurological examination is only of relative value, whereas two or more such sequences give us a developmental scheme or progressive pathological or improvement trend—an on-going pattern— to which time has added another element. The additional visits also, of course, give us some view of the child's normal capacities to cope and need of and response to treatment, thus adding a great deal to the prescription for treatment. This is true whether the treatment is specifically medical, pharmaceutical, or psychotherapeutic, and whether it involves manipulation of the home, school, or social situation. Needless to say, the careful (but not necessarily too wordy) preparation of records and their preservation and availability are important for the future management of the patient as well as for evaluating past diagnoses and treatment, for teaching professionals, and for research.

Diagnostic Classifications

The prescription for psychiatric treatment might appear to be best made through a classification or diagnostic evaluation based on etiological or causative factors. Such is the statement from the Committee on Child Psychiatry of the Group for Advancement of Psychiatry (GAP). In their 1957 report, "The Diagnostic Process in Child Psychiatry," it is said: "Comprehensive treatment evolves directly from the diagnostic formulation which gives purpose and direction to therapeutic goals, prognostic speculation, and appropriate plans to ameliorate or correct the child's emotional disability."

However, with our present state of knowledge, we find that diagnostic evaluation does not actually contribute to the goal of prescribing a treatment that will cure the psychiatric, emotional, mental, or behavioral problems of childhood. This is because the child is continually developing (or failing to develop) within an interplay of given constitutional, experimental, and environmental factors and within an embedded (and also developing) capacity to integrate and evolve compensatory and coping mechanisms that change at each developmental stage (Bender, 1948). There are no cures, but at the same time there are multiple capacities in the child to experience reality responses and compensations, as well as to utilize therapeutic endeavors in ameliorating unhealthy, painful, and disruptive symptoms and

behavior. The child benefits most from therapeutic programs that aim at current, immediate results, at healthy and happy life experiences in the here and now. For future needs we must trust to the life course to correct itself with the same or similar corrective mechanisms—or to fail to do so.

The Classification of the American Psychiatric Association

There have been great difficulties in the diagnostic classification of childhood psychiatric disorders. The *Diagnostic and Statistical Manual of Mental Disorders,* (DSM-II) 2nd ed. (American Psychiatric Association, 1968), prepared by the American Psychiatric Association, includes children's diagnoses under each adult classification (Jenkins, 1964). This cannot be satisfactorily used for the treatment of children. It does not allow for the developmental deviations and compensations that occur in children. The classification was formulated for the purposes of improving communication between psychiatrists and other medical clinicians, between disciplines, and between geographical states and nations; providing a medium for statistics; making results of research more readily understood; and classifying issues in psychiatry. It does not imply judgments about the cause and nature of disorders and their treatment (Gruenberg, 1969).

The GAP Classification

A most comprehensive and useful classification of children's psychopathological disorders has been prepared by the Committee on Child Psychiatry of GAP (1957; 1966). An additional valuable contribution of the report is a review of all previous classifications, (twenty-four in number) in the appendix. The committee's proposed classification is based on three propositions: (1) the psychosomatic concept involving unity of mind and body and the interrelatedness of mind and body; (2) the developmental dimension, so essential to the study of the child; and (3) the psychological aspects of the child's existence in the family and society.

Their classification runs as follows: (1) healthy responses; (2) reactive disorders; (3) developmental deviations; (4) psychoneurotic disorders; (5) personality disorders; (6) psychotic disorders; (7) psychophysiological disorders; (8) brain syndromes; (9) mental retardation; and (10) other disorders. It will be seen that this classification is based on a "hierarchy ranging from healthy responses, through milder to more severe psychological disorders, to syndromes in which somatic syndromes predominate." The committee also offers a list of subcategories and of symptoms that can be used in a diagnostic formulation.

The emphasis on healthy responses to stress is noteworthy, as is that on the child's capacity to spontaneously correct some of the reactive disorders, developmental deviations, and psychoneurotic disorders, especially in a new

phase of development. The committee found that an effort to seek a clinical-dynamic- genetic-etiological scheme and indication for therapy was unrealistic at this time.

A Modification of the DSM-II Classification by Fish and Shapiro

Barbara Fish and Theodore Shapiro" (1964; 1965) worked out a "Typology of Children's Psychiatric Disorders," based on current functioning of the child and to be used in controlled, and especially psychopharmacological, studies of treatment. They had found the DSM-II nomenclature inadequate for treatment research in children because it gives no specific subdivisions of childhood problems. Therefore they emphasized the importance of diagnostic categories (Fish, 1971) evaluated by severity of disturbance, and they objected to the trend toward giving a specific drug (or other treatment) to one target symptom—for example, a stimulant for hyperkinesis—rather than treating the child for the severity of the disturbance. Their analysis of their own work and that of others reported in the literature (such as Bradley, 1950; 1941, and Bender and Cottington, 1942) justifies these claims.

They classify disorders into three types, based on grade of severity, prognosis, and ability to respond to treatment. These are really subgroups of classical diagnostic categories, which could be used in controlled studies in an

institutional setting—such as Bellevue, where they were working.

Type 1. Autistic-Disjunctive. Severely impaired schizophrenic children with autistic and symbiotic features.

Type 2. Immature-Labile. Better-integrated children, but inadequate and labile, with borderline impairment of integrative functions; fragmentary, autistic, and neurotic paranoid features. May develop into one of the following features, but current functioning was the criteria.

Type 3. Anxious-Neurotic. Labile, with relatively intact personality organization and predominantly neurotic and anxiety adaptation, ranging from mild neurotic reactions to pseudoneurotic schizophrenia.

Type 4. Sociopathic-Paranoid. Well-patterned, organized, manipulative, antisocial, and negativistic, denying anxiety and dependency needs.

Fish and Shapiro also show that they include the categories of many other workers. They mention Bender's (1956) pseudo-defective, pseudoneurotic, and pseudo-psychopathic schizophrenics; Mahler's (1949; 1968) symbiotic psychosis; Kanner's (1951) early infantile autism; the British group's (Creak, 1961) childhood psychosis; and Goldfarb's (1961) "organic" and "non- organic" schizophrenia.

Wenders Minimal Brain Dysfunction (MBD): A Denial of Classification

According to Paul Wender (1971), MBD is extremely common and includes conditions that have both psychological and neurological bases, such as: (1) motor disorders; (2) attention, perception, and cognition dysfunctions; (3) learning difficulties; (4) disorders of impulse control; (5) difficulties in interpersonal relationships; and (6) a variety of emotional types. Neuroses, delinquencies, and schizophrenia may be included, or MBD may be at least a forerunner or early manifestation of schizophrenia. It may be safely assumed that any preadolescent child in a child guidance clinic may be put in the category of MBD until proved otherwise. The exceptions Wender would allow are those childhood conditions that are too bizarre in behavior and fantasy, or too retarded mentally, or too brain damaged, or who have recently been disturbed by a noxious environment (1971).

In the diagnostic evaluation, Wender finds most useful the mother's and teacher's complaints and the therapeutic tests with drugs. He does not find of much use the psychiatric interview of the child, the psychological or educational tests (except to help in school placement), the neurological examination, or the EEG. He also says that even if the child shows organic brain disease, the MBD may be independent of it. He feels that there is no need for a diagnosis in an outpatient service. His main emphasis is on a management program with drugs on a trial basis, counseling of parents, or casual forms of psychotherapy and educational programing. He anticipates a good prognosis, with disappearance of symptoms in puberty (1971, p. 96).

Wender's chapter on management with description of available drugs and their use and effectiveness, is very useful. His first drug choices are the stimulants, amphetamines, and methylphenidate, but he also discusses the antidepressants, phenothiazines, diphenhydramine (Benadryl), and anticonvulsants (1971, p. 105ff). His results would indicate that he has seen only the milder cases in out patient services, such as those in Types 3 and 4 described by Fish.

Undoubtedly Wender's management program will work in many cases —at least until puberty, when a change (usually improvement) may be anticipated even in many untreated cases. It will save time for the child, the family, and the clinic, and thus it will also save money. But it leaves the more difficult children uncared for, and a certain number of children will not be adequately evaluated or treated; whereas a careful diagnosis and selective treatment might anticipate and prevent more serious problems such as a psychotic decompensation, adolescent epilepsy, some progressive neurological disease, or a situational crisis.

Anna Freud's Diagnostic Profile

Anna Freud (1962; 1970) has formulated a diagnostic profile aimed at prediction, which she claims is "not only . . . a tool for completion and verification of diagnosis but also an instrument to measure treatment results,

[and to make a] prediction [of] chances for spontaneous recovery and response to treatment." It has been productive of considerable response in the literature (see Thomas, 1966, and Laufer, 1965), but there has not yet been time enough to assess its value on long term follow- ups. The diagnostic profile is based on developmental and genetic assessments.

Her classification of symptoms includes the following headings: (1) the initial nondifferentiation between somatic and psychological processes; (2) compromise formation between id and ego; (3) corruption of id deviations into ego; (4) change in libido economy or direction of cathexis; (5) change in quality or direction of aggression; (6) undefended regression; and (7) organic changes.

Rutter's Triaxial Classification

Michael Rutter (1972) argues against a classification based on etiology, because of the inadequacy of our knowledge of etiologies, because many children are inadequately evaluated, because of the lack of differentiation between clinical syndromes that have different clinical pictures and apparent causes, and particularly because of the usual implication of "one cause for one condition" in such a classification. Working with the World Health Organization (WHO) in a series of international seminars on psychiatric diagnosis and classification (Rutter, 1969), he has become convinced that a

multiaxial approach to classification is the logical development to a multicategory scheme.

Four axes are suggested. The first specifies the clinical psychiatric syndrome; the second, the intellectual level; the third, any associated or etiological-biological factor; and the fourth, any associated or etiological-psychosocial influences. However, Rutter actually uses a triaxial classification to discuss the first axis in the psychiatric syndrome: the intellectual level; biological factors; and psychosocial influences. He divides the psychoses of childhood into autism, schizophrenia, and the disintegrative psychoses (usually organic), arguing that they are three different and unrelated conditions. Concerning treatment, he says, "It should not be thought that there is one treatment for one syndrome. We are dealing with individuals suffering from disorders, not with disembodied disease states" (Rutter, 1972, p. 332).

Bender's Classification

My own classification of the psychiatric disorders of childhood is based on an organic substratum, developmental trends, and environmental influences, all of which effect every child. Thus I suggest: (1) organic brain defects or damages; (2) minimal brain damage; (3) maturational lags (including schizophrenia and learning disabilities); (4) neurotic disorders;

and (5) emotional-cultural deprivation and situational stress.

Every child (and adult) has defects or disorders or pathology of some degree in all these areas. The rule of parsimony, which holds that a single diagnosis should be used to account for a medical complaint or ailment—or, as it has been stated by Menninger, (Kanner, 1949) "Each patient has one and only one disorder"—is certainly not true of the neuropsychiatric problems of childhood, and it is not a law that can be used in the prescription of treatment for children. The ideal of a perfect human being developing and living normally in a perfect environment is an unreality. Every child has inherited physical and personality and intellectual characteristics that are unique and to some degree anomalous. There is probably always some organic deviation, slight or gross. The child always reacts with some defenses and neurotic patterns, unless grossly defective or grossly deprived. There are always situational problems. Not all children have the specific maturational lags of schizophrenia or language disabilities, but they may have some nonspecific maturational lag. If we consider a child diagnosed as schizophrenic, we must expect to find: (1) the specific characteristics of the schizophrenic processes; (2) the stress (usually organic and with minimal brain damage in children) that decompensated the otherwise latent schizophrenia into whatever clinical picture is presented; (3) anxiety; (4) the defenses—autistic, neurotic, psychopathic, or psychotic; (5) the child's unique constitutional organic being and personality; and (6) his situational or social and family problems.

Every disturbed child must be examined in every area for evidences of pathology and problems and how the child is reacting to them. We must never be content, for example, to know only that there is evidence of a birth injury, epilepsy or mental deficiency, a situational stress, or a rejecting mother; or that the child belongs to a minority group, is socially outcast, living in poverty, or without a father. Even if we know that a single condition is gross and overwhelming the child, we must remember that some problems exist in all other areas as well. Other children with similar overwhelming problems in some areas may be coping. The child in question may or may not be able to develop within the normal range if help is given in one area or, alternatively, in several areas. It cannot be assumed that specific treatment applied to one obvious condition will solve the child's problems, but on the other hand it may indeed be sufficient to enable the child's normal adjustment capacities to function and pull the child out of his morass of difficulties. (Bender, 1948; Bender, 1958)

Prescribed Treatment for Classified Diagnostic Disorders

Organic Brain Disorders

Many kinds of organic brain defects or damages occur, including perceptual defects of sight or hearing (peripheral or central) and motor disorders, such as cerebral palsies, hemiplegias, choreas, extrapyramidal

disorders, and cerebellar agenesis. These may be combined with each other, and they may be severe or very slight. It is the very slight conditions, left unrecognized, that are most important in the child with a behavior or mental problem. Mental retardation of every grade, psychoses, epilepsies, and various behavior disorders may be associated with conditions that are either congenital or developed in utero, perinatally, or in the early postnatal period.[2]

The natural history of individuals who survive early brain damage varies enormously (Gesell, 1949). However, only a very few of even the most severely structurally damaged children do not show some capacity toward normal development or compensations and coping mechanisms. The mentally defective child does develop physically, mentally, and emotionally (even if more slowly than expected), and he often makes a better adult adjustment than would be anticipated (Bender, 1958). Unless he is severely mentally defective, the child with prenatal or perinatal damage (before the age of two) to the brain areas associated with language development does develop language and does not show the type of aphasias seen in adults with later-acquired pathology. (Penfield, 1959) Children with cerebellar agenesis tend to outgrow most of both the neurological and the reactive psychiatric signs that are present in early development, but they retain special personality characteristics (Bender, 1940).

Many efforts have been made to find specific treatments for various organic problems associated with mental, emotional, and behavioral disorders. Some given specific treatment has often been possible, but even when it has been successful and the specific condition cured, the child often remains disturbed in his development and behavior. Most congenital disorders—whether inherited or of unknown origin, whether acquired in utero from the mother (such as maternal rubella, at a critical embryonic stage of development) or postnatally from the environment (such as encephalitis)—have already injured the child and interfered with the usual pattern of development.

Premature birth creates its own problems, usually for the lifetime of the individual. (Caplan, 1963, Creak, 1961) These problems may not be overwhelming, but they may be added to whatever condition precipitated the premature birth. (Often the condition is pathology in the mother in early pregnancy [Bender, 1965]). And birth itself is associated with its own threats of pathology, such as the hemolytic diseases (erythroblastosis foetalis), hemolysis with kernicterus, congenital syphilis, or (more common in the 1970s) heroin addiction of the newborn. Each condition needs its own treatment at the time of birth; thereafter the child may or may not need treatment of a nonspecific type and, indefinitely, training.

The infectious processes that later attack the brain lead to the same

requirements for care. The medical profession has contributed to preventive programs with antibiotics, serums, and vaccines. But it is still true that even when there are specific treatments that may cure the original disease, most of the organic causes for cerebral damage leave scars and tend to change the lifetime pattern of the child's development, behavior, mentality, and emotional responses in interpersonal relationships. We must emphasize again that one illness alone is never the only factor in the individual's total life experiences.

The following can serve as an example. In the 1930's a number of cases with Sydenham's chorea, with psychosis or behavior disorder, were observed in the children's psychiatric service at Bellevue. Some were referred from the pediatric service of that institution, where they had been under treatment for rheumatic fever in one or another of its multiple forms and had been found unmanageable. Others were referred from community resources as behavior disorders, the rheumatic fever and even the typical choreiform motility having gone unrecognized. Neurological evaluations identified the typical features of the chorea in these children. Otherwise their behavior, intellectual levels, and emotional responses varied in every way. Fever therapy was the treatment of choice at that time for all forms of the rheumatic fever complex, including the chorea. Thirteen of twenty such children, eight to fourteen years of age, received fever therapy on the psychiatric children's ward. This was part of the larger treatment program, which included sedation (barbitals and

bromides, in the 1930s), education, socialization, psychotherapy, and a wide range of activity therapies (puppetry, art, music, dance, and so forth [Bender, 1952]). They all showed an immediate improvement in all aspects of their rheumatic fever, the chorea, and their behavior; afterwards the children were sent to convalescent homes for months of care. However, a follow-up after nine years, on the average, when they were twenty-two to thirty-one years old, showed that most of both the treated and untreated cases had made a poor adjustment. Only three of the twenty had made a satisfactory one. Poor adjustments occurred in particular where there were maladjustments before the recognized rheumatic fever. These early maladjustments included: gross emotional and cultural deprivation through institutionalization in infancy; encephalitis in infancy; mental retardation; and learning difficulties in school (dyslexia). Three cases proved later to be schizophrenic, as well. There was also evidence of chronic brain damage in some cases investigated, apparently as a result of the rheumatic fever process in the brain (Keeler, 1952).

The convulsive or seizure disorders of children or of epileptics suggest themselves at once as good examples of disorders that respond to specific pharmacological agents (Detre, 1971). It is of some interest to recall that phenobarbital, the first anticonvulsant, was only incidentally found to control convulsions when it was given as a sedative to institutionalized epileptics to control their poor sleeping and their restlessness, especially in their sexual behavior. After that the deliberate effort to find drugs that would effectively

control convulsions led to the discovery of other barbiturates, such as Amytal Sodium and Mysoline; the hydantoins, such as Dilantin; the succinimides, such as Zarontin (especially for petit mal); and the oxazolidines, such as Tidione. Often drugs are given in combination to reduce the toxicity of each, such as a barbiturate with Dilantin, and sometimes adjuvants are added, such as Diamox or Dexedrine. Other drugs are added to relieve symptoms other than the convulsive disorder itself, such as anxiety or hyperkinesis; these may include the tranquilizers and antidepressants.

These practices only emphasize the fact that children with convulsive disorders have problems separate from the convulsions, and that even if the convulsions are controlled, these other problems will most likely still need attention. We may always assume that such children show signs of minimal brain damage at least (if not gross damage) and of neurotic responses and situational stress, and that they often have maturational lags such as learning problems. On the other hand, many children will be able to cope with their incidental problems if the major problem of the convulsions is controlled. There are other children who have all the features of a convulsive disorder, including EEG changes, without having had a convulsion (at least up to that time), and whose behavioral symptoms will improve if treated like a convulsive disorder with anti- convulsive drugs, especially Dilantin. (See Kennard (1956), denied by Pasamanick, 1951) Sometimes such behavior and EEG signs may anticipate convulsions occurring later at puberty. Hopefully,

treatment may not only control the disorganized and unruly behavior, but also prevent the occurrence of the convulsions; but this is difficult to document.

Minimal Brain Damage [3]

Minimal brain damage is due to intrauterine or perinatal or early postnatal damage to the immature brain, with no necessarily demonstrable structural damage to the cortex. Fine changes in and damages to the periventricular vascular bed, involving the cerebral germinal matrix, have been demonstrated by Banker (1962) and Towbin. (1971) I have described the syndrome in children, (Bender, 1949; Bender, 1950) and Greenacre (1952) has described the lifelong effects and the response to psychoanalytic therapy in adults.

The symptomatology of the minimally brain-damaged child, as I see it, is fairly specific. The damage creates problems in the maturation and organization of perceptual, impulse, and motor patterns. Consequently, though borderline hard neurological signs may occur, more often soft neurological signs are present. The soft neurological signs described by Schilder (1964) refer to the immaturity of patterned reflex behavior. These soft signs include the retention of the Moro reflex or the tonic neck or postural reflexes beyond their usual time of disappearance, the slow

maturation of cortical dominance, and the inadequate maturation of vestibular tonic responses and ocular-motor control (especially of convergence). Consequently there may be motor awkwardness without motor neurone signs. Disorganized and impulsive behavior is common. Lack of or retardation in patterning of perceptual experiences is as important as the motor and impulsive disorders and contributes maximally to the hyperkinesis. (Bender, 1949) It reveals itself in immature visual motor gestalt patterns and immature human figure drawings and, significantly, in an immature body image (and consequently a poor self-image or identity) (Bender, 1938; Bender, 1946).

Anxiety is a common feature, together with an increased infantile demand for security in the mother-child relationship or such behavior as clinging and demanding of attention. Often hard to gratify, this demand leads to irrational feelings of rejection and (along with the identity difficulties) to paranoid attitudes. The hyperkinesis seems in part to serve the function of seeking more perceptual experiences and a better organization of them (Bender, 1950). Since this is an immaturity in organization and not a neurone defect, it tends to correct itself with development. It responds to increased mothering or interpersonal relationships and to all kinds of motor and perceptual experiences, and it suffers from a lack of them. It may pretty well disappear by puberty, with or without treatment. But as Greenacre has shown, some adults may still be seriously handicapped by it.

Some degree of minimal brain damage must be very common, if not universal. What individual can survive the vicissitudes of intrauterine life, birth, and early infancy without some likelihood of damage of some degree? That most individuals do not show clinical signs is due to the mildness of the disorder, the strong drive for maturation, and the compensatory mechanisms, usually of an obsessive- compulsive nature. (Of course, every major organic brain disorder will also be associated with all the signs of minimal brain damage, although the latter symptoms may not be as prominent as those due to the major damage.)

The treatment for minimal brain damage should aim at stimulating maturation, organizing patterned perceptual, motor, and impulse experiences, and relieving anxiety and distrust. The hyperkinesis will respond accordingly. Treatment should include intensive mothering of the infant, with substitutes to relieve the unbearable demands on the mother; this may take the form of psychotherapy or some other kind of structured activity within an interpersonal relationship. Stimulating (rarely sedative) drugs are a great help. Wender's management of MBD is certainly appropriate for such cases. The main emphasis, however, should be on life experiences, interpersonal relationships, and the exploitation of every opportunity for patterned behavior (which is certainly facilitated by drugs).

Maturational Lags

What I have called maturational lags in children include schizophrenia and the specific learning disabilities such as dyslexia (Bender, 1957; Bender, 1958; Orton, 1937; Thompson, 1973). Both conditions are believed by many to be hereditary (see Kallmann (1946), Rosenthal and Kety (Rosenthal, 1968), and Heston (1970) in schizophrenia, and Orton (1937), Hallgren (1950), and Bender (1958) for dyslexia).

I see childhood schizophrenia (Bender, 1968; Bender, 1970) as a psychobiological entity determined by an inherited predisposition. This has recently been confirmed by many others (see Rosenthal and Kety (Rosenthal, 1968,) and Bender, 1970; 1973). This entity is decompensated into a childhood clinical disorder by a physiological or organic stress (usually perinatal), with both a failure in adequate defense mechanisms against the core anxiety, and disorganization. These results in turn add to the symptomatology. Schizophrenia persists for the lifetime of the individual. It is manifested by different clinical, behavioral, or psychiatric features at different epochs in the individual's life, and in relationship to compensating defenses and environmental stress or support. There are autistic (Kanner, 1949) and symbiotic (Mahler, 1949) features in infancy and early childhood, psychoses in mid- and late childhood, remissions in latency or puberty, pseudoneurotic and pseudo-psychopathic features in adolescence, and a wide range of regressive, psychotic, and remitted states in adulthood.

The specific features of childhood schizophrenia are maturational lags and embryonic plasticity. There is a lack of differentiation of pattern formation and of boundaries in every area of functioning, such as the autonomic nervous system, motor behavior (with soft neurological signs), perception, cognition, affect, and social behavior. Anxiety is at the core of the problems and calls forth a variety of autistic, neurotic, psychopathic, and psychotic defenses. Because of these characteristics of early schizophrenia—the plasticity, the maturational lags, and defensive and coping responses—spontaneous remissions are very common, especially in puberty in boys and latency in girls. They often lead to a change in diagnosis or an overvaluation of therapeutic efforts, if the follow-up time is too short (Bender, 1956). Later in adolescence or adulthood the schizophrenic illness may again become too evident, even if in some other form.

Biological Treatments

Specific treatments in both the biological and psychological areas have been sought in childhood as well as in adult schizophrenia. These have included Metrazol, electric and insulin convulsive therapies, hormones, ortho-molecular therapy and many of the psycho- pharmacological therapies (Kalinowsky, 1969). My own experience with the biological treatments for childhood schizophrenia has probably been the most extensive (Fish, 1967). Metrazol convulsive treatment was used in Bellevue from 1938 to 1942

(Bender, 1964; Cottington, 1941). Electric convulsive treatment was given to more than 500 children at Bellevue from 1942 to 1956 (Bender, 1964; Bender, 1952; Bender, 1974), and at Creedmoor State Hospital children's service from 1956 to 1969 (Bender, 1961; Faretra, 1967). In the 1940s insulin therapy was sometimes combined with electric therapy. Annel (1955) of Sweden had more experience with insulin therapy. Subcoma insulin has also been used (Faretra, 1962).

The first five-year follow-up report on 100 schizophrenic children treated with electric convulsive therapy (Bender, 1947) led to the conclusion that the essential schizophrenic process did not seem to have been modified. With twenty- five years more experience, these same conclusions hold (Bender, 1974). Convulsive therapy in childhood does not cure schizophrenia. Neither has it changed the life course of schizophrenia when children who have received Metrazol convulsive therapy from five to fourteen years of age, or electric convulsive therapy from two to twelve years of age, are followed into their fourth and fifth decade (Bender, 1974). Kalinowsky and Hippius imply that the same results are found in adults when they say, "The difference between the outcome of shock treated and untreated schizophrenics may not be too striking, but the number of years spent outside the hospital is certainly higher in shock treated patients" (1969, p. 241). This apparently refers to the remissions that in many cases follow early shock treatment.

Children also seemed to benefit from both Metrazol and electric convulsive treatment, immediately and for some time thereafter. In the case of the Metrazol treatment, it was concluded (Bender, 1964) that treated children who had shown an early autistic development became more manageable and could be habit-trained, and many went home in a partial remission. But' they had to return to an institution and the chronic course was not changed. Boys who were psychotic in mid-childhood and had Metrazol near puberty responded with a remission, and could be discharged; most of them maintained a favorable but dependent life in the community. Boys who had an onset of schizophrenia in puberty responded, in some cases, with a remission; this made possible a community and educational program for several years and, for a few of the boys, indefinitely. Most of them returned to hospitals for a chronic course, but some again responded in the 1950s to the tranquilizing drugs and were able to make a dependent adjustment in the community (Bender, 1970).

Our early conclusions (Bender, 1947) in 1947 concerning electric shock treatments were that although the schizophrenic process was not modified, the children benefited by an improvement in their ability to deal with symptoms—especially anxiety—secondary to the schizophrenia. We found that the development of the intelligence and the IQ remained stable, and that the EEG tended to maturate normally; in some cases it even seemed to accelerate, if maturation had been slow before the treatment (Kennard,

1956). Our last follow-up studies (Bender, 1974) in 1971 showed that although none of the convulsive therapies—Metrazol, electric shock or insulin coma—significantly modified the life course of individuals treated in childhood, children treated with Metrazol convulsions did have significantly more puberty remissions (87.3 percent) than children with electric convulsive therapy (63.6 percent) or children with no convulsive therapy (50 percent).

Pharmacological Therapies

Pharmacological agents have been looked to hopefully, as a specific treatment for schizophrenia that would produce a cure. Eisenberg, (1959) in a discussion on childhood problems, said that the goal of drug research was to find an agent that would cure mental illness. However, Kalinowsky and Hippius (1969)have stated that "the early claims of some workers for the new drugs have not been fulfilled and it is realized that they improve symptoms only, rarely producing a deep-seated effect on the fundamental aspects of the illness. The main value of neuroleptic drugs to patients, other than the stimulus for more research, appears to be twofold; the tranquilizing of acutely disturbed patients otherwise uncontrollable, and symptomatic improvement in chronic patients enabling them to have and use more freedom and participate in more activities." This applies to adults. Actually, more has been accomplished with the psychopharmacology of childhood; nevertheless no

drug has been found that will cure childhood schizophrenia.

Pharmacological therapy was an important part of our regime at Bellevue beginning in 1935, when we first recognized schizophrenia in children.[4] Using a wide range of available drugs, we aimed at reducing anxiety, stimulating maturation, and organizing unpatterned homeostasis, behavior, and interpersonal relationships. We started with the amphetamines, (Bender, 1970; Bender, 1942) which Bradley (Bradley, 1950; Bradley, 1941) had first recommended for brain-damaged children. We eventually found amphetamine the most useful for schizophrenic children who exhibited frank anxiety and inhibitions in interpersonal relationships, along with maturational lags such as learning disabilities; it also seemed to be specific for reducing excessive sexual drives and preoccupations. We used the anticonvulsant drugs, especially Dilantin, in those schizophrenic children with impulsive behavior and EEG dysrhythmias. (This was not confirmed by Pasamanick, 1951) We found that Dilantin and Benzedrine could be effectively combined in some children. In the 1940s, when we became aware of the immature homeostatic patterning often described as allergic in young schizophrenic children, we started the use of antihistamines. Benadryl proved most effective in stimulating better- patterned maturation of the autonomic, or homeostatic, function. We went on to use Mephenesin derivatives (Meprobamate), the rauwolfia alkaloids (Serpasil), and the phenothiazines (Thorazine, Compazine, Stelazine, and Mellaril). Except for the emergency

control of an acutely disturbed child, as on admission to a hospital, these drugs were not used to sedate or tranquilize children. We found that they would organize disorganized behavior, relieve anxiety, and facilitate interpersonal relationships. Reductions in overactivity and aggression appeared to be secondary benefits, as were an improvement in learning ability, better concentration, and better peer relationships.

However, there is no specific effect of any of these drugs on schizophrenic children. Other disturbed children who were not schizophrenic also responded. In other words, pharmacotherapy is prescribed not for the disease but for the child, and for his reaction to whatever pathological processes or experiences he may have.

A special research program for D-lysergic acid diethylamide (LSD-25) and its methylated derivative, Methylsergide (UML-491), was carried out at Creedmoor in 1961-1966, with the hope that these agents might be a specific treatment for schizophrenia in children. The hope was based on: (1) evidence that they had a serotonin-inhibiting and stabilizing effect on the autonomic and central nervous system; and (2) their effect in arousal and then increasing responsiveness to sensory stimuli, with a preponderance of sympathetic activity and increase in skeletal muscle tone and tone of the vascular bed of the brain (Bender, 1966). We found that young schizophrenic children responded to the agents with considerable improvement in general

well-being, in autonomic nervous system patterning (which tended to normalize [Faretra, 1964]), and in habit training and behavior. This was true even in cases with severe behavior disorders, such as self-mutilation and head-banging, that had not responded to other therapeutic measures. In addition, a group of prepuberal schizophrenic boys improved in over-all behavior and attitude and reality contact; decreasingly bizarre fantasies were replaced, with considerable insight, with some paranoid and depressive trends. Mental testing showed improved maturity and better organization in the boys, and this was reflected in better school work. Improvement was maintained for one and a half years. Boys that had a suitable home were able to leave the hospital and be maintained at home. Subsequent follow-up has not been done.

In 1968, following a report of chromosome damage in LSD-25 users, (Irwin, 1967) chromosomes were examined in children who were still available in the hospital and who had received 100 to 150 micrograms of LSD-25 daily for fire and one half to thirty-five months. No chromosome damage was found (Bender, 1968). The use of LSD-25 and related agents still offers some hope for the treatment of schizophrenic children, even if only at the symptomatic level.

Psychotherapies

Psychotherapy has been extensively used as a specific treatment for schizophrenic children. Even more commonly, however, psychotherapy is used with disturbed children nonspecifically, without a recognized diagnosis (Klein, 1937; Freud, 1946; Rank, 1949). There are also outstanding specific therapeutic endeavors. Bruno Bettelheim, in *The Empty Fortress* (1967), reported on the results of "the most intensive and sustained therapy we were able to provide" on forty-six autistic children. (This was residential therapy combined with individual, psychoanalytically-focused therapy.) He claimed seventeen good results and fourteen fair results; fourteen either had poor results or were excluded because of insufficient treatment. These results do not differ much from the 31.5 percent adequate social adjustment out of 759 cases summarized (Bender, 1968) from twelve reports from the international literature for a twenty-year period. There is no evidence in Bettelheim's report that any of the treated children were cured as adults, although several did well in college. But Bettelheim certainly demonstrates that these very sick children benefited from the therapeutic program to which they were exposed. Their lives were enriched, they had a great deal of happiness, and they contributed to the world's fund of knowledge and human warmth through the relationship with the adults who were dedicated to their care and treatment. These things are important too. Bettelheim figured that at least three years was needed in the residential treatment of each child.

Rudolf Ekstein (1971) reported on children treated psychoanalytically

on an outpatient basis at the Reiss-Davis Child Center. He speaks of cures, but no cures are recorded. The fifteen-year-old adolescent most extensively reported had nearly ten years of treatment, but she relapsed and entered a hospital with a psychotic episode for two months. Still, her ability to cope with her schizophrenia showed continuous improvement in organization and maturation, both in the life test of living in the community and in her responses to psychological tests.

In the 1930s, our earliest years at Bellevue, psychoanalytical therapy was emphasized (Bender, 1968) and carried out by many whose names have become well known. Rapoport(1942; 1944), Cottington (1941-42), Paul Schilder (1936), and many others were especially active, hoping to help the children they treated and hoping also that the analysis of childhood cases would reveal evidence for early trauma or deprivations that would help account for the disorder. Such evidence had not been uncovered in analyses of adult cases. We were disappointed in these hopes, however, whether from our own work or from that reported in the literature.

Later Gurevitz (Bender, 1955) attempted a modification of psychoanalytic treatment that aimed at activating the neurotic symptomatology, relieving anxiety, and promoting identification processes, thus helping a group of young schizophrenic children to cope with their symptoms and maturate in behavior. To some degree he adapted Sechehaye's

(1964) method of symbolic fulfillment. Treatment lasted from two to four years, beginning in residence and continuing on an outpatient basis with the same therapist. All the children showed marked improvement in observable behavior related to homeostatic, vasovegetative, and neurological functions; in body image and self- concept; in anxiety; in intellectual function; and in school and home or boarding-home adjustment. This improvement lasted through latency and early puberty, after which various schizophrenic symptoms recurred: one child committed suicide, one was lost to follow-up, and the rest had chronic hospital care as adults.

Tutoring schizophrenic children who had a reading disability proved, in the hands of Ilse Goldberg (1952), to improve both conditions symptomatically. This occurred in both boys and girls in the prepuberal and adolescent periods. Effective remissions in the schizophrenia occurred, and the learning of reading advanced. All this contributed to our own observations that both conditions are maturational lags. Many specific language disabilities, such as dyslexia, are also best understood as maturational lags in the (evolutionally) recently acquired functioning of cortical areas that serve language and symbol formation and the tool-and-pencil-using hand (Bender, 1957; Bender, 1958). In addition there is (often disputed) evidence of an inherited familial pattern (Hallgren, 1950; Orton, 1937). Many other maturational lags occur in the areas of personality, perception, cognition, and motor organization (soft neurological signs [Detre,

1971]). Of course there are many children with slow learning who may appear not to belong to this specific category but, instead, to be effected by cultural deprivation (Rabinovitch, 1956). As in all disorders in children, there is a wide range in the severity of learning disabilities, and it is probable that the less vulnerable child may be able to compensate (if he is not culturally deprived) whereas the culturally deprived child will not.

Early—preferably preschool—prediction of reading failure is feasible (De Hirsch, 1966; Jansky, 1972) and is certainly the desired method for saving the child from school failure and behavioral disorders. (It is also more economical for the educational system.) Otherwise, after the child has failed for several years, the more difficult course may have to be followed—providing remedial training and therapy for the reactive personality problems.

Dyslexia and all the other learning disabilities have been the subjects of a great deal of controversial literature (Thompson, 1973) as to whether they are specific or nonspecific neurological problems, the result of social-cultural deprivation, or a psychoneurotic reaction to poor schooling or to early difficulties in the parent-child relationship. In any of these diagnostic assumptions the child would still need some combination of the following treatment programs: (1) early prediction; (2) a form of tutoring adapted to the child's specific learning disability—often a maturational problem in

auditory, visual, or proprioceptive sensory function, or a combination of these; (3) compensation for the social-cultural deprivation; (4) (sometimes) psychotherapy, in addition to or instead of tutoring by those who see a learning disability as an ego defect; and (5) pharmacotherapy. It has been well documented that drugs, and especially the stimulants such as the amphetamines and methylphenidate, are markedly effective with many of these children with learning disabilities (Beck, 1970, Bender, 1942; Fish, 1971; Wender, 1967). It has also been shown that there is apparently no relationship between prepuberty children receiving these drugs, under these conditions, and adolescent addiction (Freedman, 1971).

Neurotic Disorders

It has already been suggested that neuroses are defense responses to more threatening, disorganizing disorders such as brain damage or schizophrenia. Unless the neurotic disorder is disturbing in itself, such as some hysteri- form states or severe obsessional compulsive behavior, it should be protected and utilized and perhaps even strengthened (Bender, 1955). The anxiety and neurotic symptoms, together with other findings, tend to point to the underlying diagnosis. Pseudoneurotic schizophrenia emphasizes this situation well (Hoch, 1964). Psychoanalytic therapy or some modification of it has been widely used in such cases, and frequently with the conviction that it is beneficial. More recently the wide range of psychotropic

drugs, together with some form of psychotherapy or counseling to the parents, has been the treatment of choice. Fish (Fish, 1971) emphasizes the importance of careful diagnosis and the careful choice of drugs for different symptoms or syndromes, and objects to the "one drug-one child" practice. Wender (1971), on the other hand, prescribes drugs (starting with the stimulants) as a diagnostic test, without any careful diagnostic interviewing or examinations.

Many child specialists see the majority of children's problems as essentially neurotic, in reaction to an early psychic trauma or other anxiety-producing environmental factors. Consequently psychotherapy is the treatment of choice for them. Sometimes insightful interpretations are given to the child, especially by those trained in the Kleinian school (Klein, 1937; Tustin, 1972). The interpersonal relationship with the therapist and the sense of security provided by the dependable repetition of the time and place where the therapy occurs are considered important. There is also a rich availability of play materials, toys, arts and craft materials, and water. *The Lowenfeld World Technique (Bower, 1970)* is a good example of such routines.

Since, in my experience, the major causes of anxiety in children are brain damage (including minimal brain damage) and beginning schizophrenia, I see these neurotic features as defenses and normal curative processes and believe that interference with them will expose the anxiety and

the more disturbing disorganization from the brain damage and possible psychosis. Neurotic features belong to the normal personality of all of us, with whatever degree of potential pathology we may have.

Success in the treatment of some specific syndromes often classified as neurotic, such as school phobias, has had considerable recognition in the literature (Eisenberg, 1958; Garvey, 1966). Treatment usually consists of an immediate return to school, some form of psychotherapy, counseling (at least for the parents), and some form of psychopharmacotherapv. School phobia is usually seen as a separation anxiety. In children at puberty or older, it is known that school phobias often indicate an early onset of schizophrenia; in my experience the same is true of many younger children as well. The above program of treatment, however, may well be effective until the next phase in development —which may lead either to a better remission or a more psychotic phase of the schizophrenic. The syndrome of Gilles de la Tourette (Shapiro, 1973) is another condition that is often treated as a neurosis, since there are often no gross neurological signs. Later life may show the true neurological condition, or the child may go into a good remission in adolescence— spontaneously, with drugs (haloperidol has been especially recommended), or with one or another form of essentially supportive psychotherapy.

Social-Cultural Deprivation

Severe early social-cultural deprivation in infancy—as in, for example, the institutionalization of babies—has been seen by many as the cause of serious crippling of personality and mentality and even of physical development (Bowlby, 1951; Bender, 1947; Bender, 1948; Goldfarb, 1955). It has been variously called the deprivation syndrome, psychopathic behavior disorders of childhood, affect hunger (Levy, 1937), psychosocial dwarfism (Talbot, 1971), and mental retardation with psychosocial deprivation (recognized by DSM-II [American Psychiatric Association, 1968]).

Typically these children have been deprived of any persistent relationship with a caring adult and of sensory, social, or cultural stimuli. Their personality formation does not mature to the superego level. They are without anxiety or any neurotic defenses. There appears to be something like an imprinting period in children, such as the one Harlow (1962) found in monkeys who were deprived of a live maternal relationship in their early infancy. The best and most specific treatment is prevention. Much has been done in this way by not allowing infants to remain in institutions, infant homes, hospitals, or convalescent homes, but instead arranging for a substitute mother in some form if their own mother is not available.

There has been a tendency to confuse the apathy, withdrawal, and interference in development that occurs in severely deprived infants with autism (Tustin, 1972). Unless the child is also vulnerable to schizophrenia by

heredity, the two conditions are actually quite different. The differences are: (1) there is a lack of schizophrenia heredity in the deprived child; (2) the nonautistic or nonschizophrenic child will not develop schizophrenia later but more likely will be a sociopathic or inadequate personality; (3) the deprived nonautistic child has none of the cardinal signs of schizophrenia described by Kanner (1949; 1951), nor the hypersensitivity to perceptual stimuli described by Bergman and Escalona (1949), nor the signs of embryonic plasticity described by myself (Bender, 1968) and Fish (1971); and (4) the autistic child is basically anxious with some kind of defense mechanisms, whereas the deprived child is without anxiety or neurotic mechanisms.

The child seriously deprived in infancy does not appear to respond to any therapeutic efforts but can adjust in a protective institutional environment, especially from adolescence on. He usually does find some supportive person or institution, such as a foster mother, a spouse, the marines, or employment in an institution such as a mental hospital. As an adult he tends to become inconspicuous and does not have a criminal career unless he is also schizophrenic or brain-damaged. Less severe grades of deprivation may develop crippled personalities who are immature and demanding of attention, who may become acting-out sociopaths, and who often find themselves in correctional institutions.

Reactions to Situational Stress

Any child with any other neuropsychiatric or behavioral problem can also react to situational stress. A child made vulnerable because of minor grades of the above-described conditions may frequently be most likely to react to stressful situations, even when not presenting any conspicuous behavior disorder. The child will return to satisfactory behavior if the stress is removed. Too often, however, a stressful situation (if found) is offered as the major problem, while a serious problem that exists in some other area is too willingly overlooked. Diagnosticians are often impressed with a bad social-cultural or family situation and do not want to seek further for the child's real vulnerability or pathology. Siblings behaving and developing normally in the same situations often exist; they should indicate the need to look into the disturbed child for his own problems. Presumably the test should be that the child will recover from the disturbed reaction if the stress is corrected.

Programs and Activities Called Therapeutic

There are many programs, disciplines, and activities that are referred to as therapies when they are furnished to children who have mental disturbances, developmental problems, and behavior disorders, including delinquencies. They are especially designed for children who are in residential or institutional care, but they are also used in less comprehensive

programs in an outpatient and even a private practice setting. Included are milieu therapy, occupational therapy, recreational therapy, and play therapy. More recently, programs of behavior therapy, operant conditioning therapy (Gelfand, 1968; Werry, 1967; Yates, 1970), group therapy (Slavson, 1965), and family therapy (Ackerman, 1966) have been developed. All of the projective techniques and creative arts have also been used as therapies, such as the graphic arts, plastic arts (clay), music (paraverbal therapy, Heimlich, 1972), dance, puppets (Bender, 1952), and drama (called psychodrama by Moreno). Remedial tutoring and any school program are referred to as educational therapy.

There is an enormous literature on these subjects that cannot be reviewed or even referred to here. I myself, in a book. *Child Psychiatric Techniques: Diagnostic and Therapeutic Approach to Normal and Abnormal Development through Patterned, Expressive and Group Behavior (Bender, 1952),* summarized nearly twenty years of work at Bellevue that was made possible, in part, by the federally-funded New Deal Arts Project (Public Works Project, or PWA). Often these therapeutic techniques are performed by trained medical professionals, psychiatrists, psychologists, social workers, nurses, or trained teachers. Often they are also performed by untrained persons and volunteers. Sometimes the "therapist" is trained in his own skill as an artist, musician, or dramatist. Courses and even special schools of such specialized therapies now exist.

Nevertheless it is doubtful if such activities should be called "therapy" and the persons who perform them "therapists." There is no evidence that they have any specific treatment effect or that they are curative in any medical sense. These activities are usually carried on as a part of a larger program for the care of problem children. Any worker who is a part of a program for problem children is called a "therapist." But the same activities carried on in a program for normal children would be called education, recreation, arts, crafts, and tutoring. For the most part they are educative and recreational. They may initiate or stimulate maturation and development and show the child that he is capable of some new skill. They may facilitate expression and communication with others and thus help or enable the child to promote his own maturation, cope with developmental disturbances or lags, and compensate for deprivations in life experiences. That they may help the child to enter into interpersonal relations and often enrich the maturational and educational experiences of the child is, of course, very important for all children, whether normal or deviant. Many times, however, the activities are most useful for the participating and observing adult, giving him more insight into the child and a better understanding of children's capacity for growth and creativeness and personality expression. Thus they facilitate the adult's capacity to interact with the child to make a diagnosis and prognosis and to contribute to new insights into his own personality problems.

More recent studies of the artwork produced by the children at Bellevue in the 1930s and 1940s led to the conclusion that children with reading disabilities often compensated for their difficulties in language communication with special abilities in graphic and pictorial art (Bender, 1951). The opportunity to perform such art certainly gave the child more confidence. Those studied responded favorably when they were also offered rather elaborate programs of foster homes and special educational programs with tutoring and recreational programs. It was further observed that series of disturbed boys and girls during puberty, who were productive in art classes and able to express their body-image problems in symbolic graphic art work, tended to have a good prognosis regardless of their diagnosis. The prognosis was confirmed by adult follow-up reports (Bender, 1969).

The present trend is for far less separation and isolation of the problem child from the community and from normal activities. Public and private schools for normal children have guidance programs and special classes for the emotionally disturbed. State residential programs are more diversified, with day schools and night and weekend programs (Drabman, 1973). Arrangements are made for weekend visits, vacation release, rapid discharge, and easy readmission. Follow-up care (preferably by the same doctors and social workers who know the child) and many community activities are used (Bender, 1958). There are more private and public facilities available for all through special funds. Mental health for the deviant child has become part of

public health (New York State Department of Mental hygiene, 1973).

Concluding Remarks

Every child is a unique person in a unique cultural-social relationship in the world. All his parts are also unique—his body, his physical appearance, his developmental pattern, his behavior, his personality, his mental functions, his relationship with other unique individuals, his problems, and his own ability to deal with his problems.

There is no perfect model for a child, and therefore every child is deviant to some degree in all his parts and all his functions. This creates the problems.

But every child also has a strong drive for normal development. This is the evolutionary process. Every child has a strong drive for compensating and coping with his deviancies and problems. Therefore most children will not need professional mental hygiene or psychiatric care, even if some professional can pinpoint some sign of deviancy.

The child who is referred may have a more severe defect or pathology of an organic nature (in the brain), a developmental or maturational problem, or a lack in the social- cultural environment or in his coping and compensating mechanisms. Or the combination of disorders in all areas may overwhelm

him; it must not be forgotten that there are also problems in the areas not grossly pathological.

The law of parsimony—one diagnosis or one disease for one patient—-does not apply to children's behavioral, developmental, or psychiatric problems. Therefore there is no one treatment that can be prescribed for a problem child. The prescription for treatment must be for the child, not for a disease. There are, of course, specific disease processes for which there are specific treatments, and there are specific developmental defects and maturational lags for which more or less specific training and rehabilitation programs can be applied. And there are specific situational stresses that can be corrected. But the child will retain the scar and the memory of the experiences that affect his development, as well as retaining all the other deviancies in his make-up. He will also have the drive for normal development, for compensating and coping with these problems, from which he will profit and be a better person.

The prescription for treatment of every child should be based on full knowledge of the child and his functioning in his environment. It should include a careful history; a knowledge of the social, cultural, familial, and school environment in which he lives (this is usually obtained by a social worker); an interview and observation, in an interpersonal relationship, by a knowledgeable professional; special examinations of psychological,

psychometric, and educational functions (usually by a psychologist); and a neurological examination, including an EEG (usually by a neurologist), as indicated. These observations and data must be integrated by an experienced professional or multidisciplinary staff group. A second interview, after trial treatment or a trial period of the child developing on his own or in a changed environment, should be a part of the prescription.

Treatment should be specific for any specific disease process or deprivation. There should be prescribed training and tutoring for motor or educational handicaps; psychotherapy for strengthening self-concepts and identifications and increasing the capacity to interrelate and communicate; appropriate psychopharmacology, because it has proved to be so helpful in many childhood problems; counseling and therapy to the family members, if they are available and need and want it; and a change in environment when indicated.

Finally, every prescription for treatment of behavioral, developmental, or psychiatric problems of childhood should be checked frequently. Children change as they develop. They may improve or get worse from their own inner resources as they progress from infancy, to early childhood, to mid-childhood, to puberty, to adolescence, and on to early adulthood.

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Notes

1 Hoch, 1964; Kalinowsky, 1964; Kalinowsky, 1969; Bender, 1968; Bender, 1970; Bender, 1974.

2 Benda, 1951; Bender, 1946; Bender, 1950; Bender, 1955; Schilder, 1936.

3 I use the term "minimal brain damage" to distinguish my concepts from Wender (1971) and I never use the abbreviation MBD except in quoting Wender.

4 Freedman, 1971; Bender, 1956; Bender, 1960; Bender, 1961; Bender, 1956.