

From the Traditional Approach to Biochemical Treatment

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When I think of the series of singular events which combined to turn me around in my approach to the treatment of my patients, I marvel at the timing and synchronization with which these came together. I reflect on the 22 years I sat either behind or at the side of a couch immobilized for 50 minutes of each long hour for 10 hours,* daily, welcoming the 10-minute reprieve between appointments to move about my consultation room, utilizing the limited opportunity for exercise to prevent my legs from becoming atrophied. I felt this occupational disaster was imminent during the final years of my career as an analyst.

I began an assessment of my discouraging-clinical results and faced the appalling reality that after 20 years of educational preparation followed by two years of general internship, four years of specialty training, and three years of military experience in psychiatry, I had spent the following 22 years treating 25-30 neurotic patients each year! When the use of psychotropics and antidepressants was introduced, these added a new dimension to the treatment of schizophrenia, but the clinical results,

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the alarming side effects, and drugging effects patients experienced with the large doses necessary to control their illness, while less discouraging than previous treatments, still led me to continue searching.

At this time LSD came under research and offered a model for the study of schizophrenia, and my interests led me to seek out Dr. Jack Ward who has since become a most highly respected colleague and good friend. We spoke of the psychotomimetic effects of LSD and his experience in its value as an investigative tool and a treatment modality, or adjunct. He also spoke of his interest in the use of megavitamins of which he had recently read. Concurrently my son met with Dr. Humphry Osmond whom he had asked for information and a critique of an architectural design project. At the conclusion of their meeting, when Dr. Osmond learned I was a psychiatrist, he suggested to my son that I meet with him so I could learn of the work he and Abram Hoffer were doing with megavitamins in the treatment of schizophrenia. I eagerly accepted the invitation and met with Dr. Osmond at the Bureau of Psychiatric Research of the N.J. Neuro-Psychiatric Institute in Princeton. We spoke for several hours, and I

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departed for New York filled with enthusiasm and heavily laden with reprints of his and Dr. Hoffer's many published papers on the use of megavitamins in the treatment of schizophrenia.

I added niacin or niacinamide and ascorbic acid to the treatment regimens of my schizophrenic patients, talked frequently to Jack Ward, comparing experiences and clinical results, and relied frequently on Humphry Osmond's expertise. I met Dr. Hoffer shortly afterward when he came to New York to lecture at Fordham University. I heard his lecture and was profoundly impressed. Ten years earlier I had become alerted to the role which hypoglycemia played in the production of symptoms which were at that time recognized only as signs of anxiety neurosis (fatigue, recurring bouts of depression, anxiety, and irritability, headache, and a variety of other "neurologic symptoms"). In searching for some understanding of the crippling fatigue and depression in my schizophrenic patients, I did glucose-tolerance tests on many and found a high percentage to be positive for reactive hypoglycemia, or some other disturbance of glucose or insulin metabolism. I had earlier spoken to Jack Ward about the findings, and he examined many of his patients, finding similar results. We began the use of the high-protein, low-carbohydrate diet in addition to the vitamins and psychotropics. We agreed I would make a report on these findings at the first meeting of the Scientific Advisory Board of the American Schizophrenia Foundation which was to convene at the Brunswick Hospital in Amityville, Long Island, in 1967. Several days before the meeting Dr. Robert Meiers arrived from California, and we met for the first time and discussed our interest in megavitamin treatment and in the meeting at which we would be speakers. We were amazed by the curious coincidence when in comparing notes we found we were both prepared to present papers on the incidence of hypoglycemia in schizophrenia, had done the same investigations, and came to similar conclusions.

After achieving the most gratifying results with my adult schizophrenic patients by including changes in their diet and the addition of megavitamins, I felt the vitamins should have a wider application. The direction to take was determined for me in late 1965 by the distraught mother of a four-year-old boy who telephoned to ask if I would treat her child with megavitamins. He had been diagnosed childhood schizophrenia, had not only failed on all treatments but was made considerably worse by the prescribed psychotropic drugs which increased his intense ritualistic behavior, his constant hyperactivity, screaming, head banging, and self-mutilation. I explained to the parents that children had not yet been treated with megavitamins; there was no background of literature or experience on which to draw. I assured them I would exercise every caution, and they agreed, and I felt fortunate to have so cooperative a pair of parents with whom I would be working in such a tenuous therapeutic effort. The patient's intense psychosis turned out to be the most uncontrollable variable in the total effort. He frequently refused to take the pills until his mother solved these daily crises by actually sitting on him until he swallowed each pill in his daily allotment. He could understand language, but could not speak and, because of the profound disturbance, could not exercise judgment or control. His daily routine consisted of screaming for no apparent reason for long periods of time, frequently during the day, running aimlessly around the house, breaking objects, and in general creating such havoc the parents corralled him in one room of the house to save the family from destruction. His rampaging, battering activities supplied the family's name for this room—The Bull Pen.

To determine the possibility of side effects more easily, I introduced one vitamin at a time, each addition being made after the previous vitamin had been increased to what I estimated to be therapeutic level. Within a few weeks, the child showed notable improvement in behavior. After three months the

screaming stopped, the sleep pattern improved, the ritualistic and aimless activities subsided.

The child, nonverbal when therapy was started, began to speak single words after six months. Shortly afterward he used couplets and was making efforts to communicate. In the following years parents by the hundreds brought their seriously disturbed children for treatment; most of these were children who had been treated with drugs without relief or improvement. It has been extremely gratifying to note that, as the years passed, parents came not only out of a "last resort effort," but because they sought the Orthomolecular approach as the primary intervention into their children's schizophrenia, autism, or other seriously disabling developmental disorders.

I noted and reported a pattern of improvement developing in those children whose treatment was successful with the megavitamins and a diet which eliminated sugar and all foods prepared with sugar, artificial colors, and flavors. With the reduction of hyperactivity and the psychotic behavior, these children manifested a desire to be taught and the ability to learn. In those children who developed speech, self-mutilating behavior subsided. Clinical observations of nonverbal children reported in research in England and corroborated by Dr. Bernard Rimland and in my practice indicated pyridoxine to be the vitamin most likely responsible for this improvement. In 1968, I found calcium pantothenate (B5) to be a remarkable preparation for stimulation of speech in the nonverbal children I was then treating.

Among the increasing number of disturbed children in my practice, I began to see some of the children who were diagnosed as suffering from minimal brain dysfunction with learning disabilities. This group of children were near- or above-average intelligence with certain learning and/or behavioral disabilities which ranged from mild to severe and are associated with deviations of function of the central nervous system. Cardinal symptoms most often seen in these

children are intense hyperactivity, perceptual motor impairment, impulsive disruptive behavior in the classroom, general coordination defects, and inability to concentrate, a short attention span, and frequently marginal disorders of speech. Many children diagnosed minimal brain dysfunction seem normal or near normal until they enter a classroom. Then, despite being endowed with average or above-average intelligence they are found to have difficulty in one or more areas of learning. The resulting academic and emotional difficulties easily led to misdiagnoses of retardation or of primary psychiatric problems. Based on my experience with the seriously disturbed children, I felt this group could be helped if their hyperactivity could be reduced and if the treatment approach could improve concentration and attention span. My experience here soon showed that those children whose parents were successful in properly applying the total treatment consisting of daily administration of vitamins and the change in diet with the elimination of sugar, refined carbohydrates, artificial colors, flavors, and other additives, achieved the best results. In this group of patients, as in all other groups I had been treating, I found dietary control with the elimination of offending foods to be of the utmost importance.

When I turned my attention to the role of trace minerals and toxic metals I noted high levels of lead in the hair analyses of many hyperactive learning disabled children. In many instances there was a correlation with blood levels which were not above accepted levels, but which I felt was high enough in many children to produce toxic effects resulting in hyperactivity. In such cases the child's urine (24-hour specimen) was examined for lead, and then a provocative dose of a chelating agent (penicillamine 500 mg) was given and a 24-hour specimen of urine again examined. In those cases in which there was a pool of lead concentrated in the tissues, the amount of lead excreted in the urine collected during the 24-hour period revealed a two-to-four-

fold increase. This group of children and the group with the blood lead levels I considered high were given a 30-day course of the chelating medication. Many children in both groups showed marked reduction in hyperactivity. I reported that lead level examination should be part of the examination of every hyperactive child and chelation should be used in those hyperactive children whose hair analysis revealed high lead levels, or whose urine following a provocative dose of a chelating agent showed a high level of lead.

Early in the years of my work with the learning disabled children, I worked with that group in whom the stimulant medications, Ritalin or the amphetamines, had failed. As reports of the success with the learning disabled children appeared with increasing frequency in the literature, I was treating more and more children whose parents were concerned about the continuing use of stimulant drugs and were seeking an alternative to drug therapy for their children.

I noted the increasing frequency with which both children and adult patients were seeking the treatment as the primary intervention into their condition, and were no longer coming as a "last resort effort." At this point in the development of the treatment, I turned my attention to those adult patients whose progress was slow and who plateaued without improvement for long periods of time. I found among many of these, low levels of many of the vitamins which they had been taking orally in megadoses for long periods of time. I began supplementing their oral doses with intramuscular doses of these vitamins two or three times each week and found this to be a most valuable adjunct to the treatment. I found also many patients given the intramuscular treatments when they began to relapse were spared another hospitalization and the agony of a full relapse into their illness. I continued to find the intramuscular injections extremely valuable in the treatment of the chronically ill schizophrenic patient used in conjunction with megavitamins by mouth, minerals, diet, psychotropic drugs, and ECT.

In the spring of 1970, an invitation to speak about the use of megavitamins and diet in the treatment of schizophrenia came from Professor Yuri Nickolaev, of the Moscow Psychiatric Institute. The invitation included the opportunity to observe in Professor Nickolaev's unit where for 25 years he had been treating schizophrenic patients by fasting. The statistics of his success

in 65 to 70 percent of this group of patients seemed like the answer to our search for help for that 20 percent of schizophrenic patients for whom all treatments failed. I accepted the invitation eagerly and, in April, 1970, went to Moscow and spent two weeks at the Institute making daily rounds among the 88 patients in the fasting unit, attending Nickolaev's daily staff conference, and interviewing patients in all the stages of the fasting treatment, the re-feeding period, and during their final discharge evaluation. This was a most rewarding learning experience for me and on my return to New York, with the help of my associate, Dr. Harvey M. Ross, I utilized the treatment with the degree of success corroborating Professor Nickolaev's statistics. In 1972, I was invited to return to Moscow and spent several more weeks with Professor Nickolaev and his staff. The use of fasting treatment is spreading in the United States, and modified forms of fasting are being used successfully to prepare the body for testing for food allergies by direct feeding. The opposition to the use of megavitamins, minerals, and the nutritional approach to the treatment of illness is eroding at an ever-increasing pace.

The importance of the role of nutrition in maintaining physical health was clarified earlier in this century by those who pioneered in the discovery of the vitamin deficiency diseases and their cure. The understanding of the role of nutrition in mental health began as a ripple early in the third quarter of our century, rapidly built to a groundswell, and is now attracting the attention of the

scientific community in an ever-widening circle. "We are what we eat" no longer refers only to our physical being, but to our mental health as well. The state of our nutrition affects our behavior, our mood, and can affect our sanity. The need to relate the advances in the nutritional sciences to the body of medicine will be realized before this century ends. Until the present, neither medical education nor medical practice

has kept abreast of these advances. Medical teaching and thinking adhered to the narrow focus of nutritional deficiency diseases and missed the importance of diet in the creation of an optimum molecular environment for the mind. The coming generations will experience the ultimate benefits of the growing awareness that nutrition operates on all levels of biochemical and metabolic functioning.