PART TWENTY

A BALANCED LIFE

BY GARY NULL

The power of psychiatry to I control and dictate the treatment of mental disorders in this strong, but it is by no means unchallenged. About 20 years ago, a number of physicians specializing in mental health, discouraged by the meager results of mainstream invasive and toxic treatments, began to look for safer and more effective alternatives. These physicians, many of whom were practicing psychiatrists, began to study the effects of nutrition-including food allergies, vitamins, minerals, and amino acids-in the treatment of such conditions as schizophrenia, depression, anxiety, and childhood hyperactivity and autism. The results of these studies have been slow to reach the public's attention, and have often been deliberately obscured by the psychiatric establishment. An informed public debate on the merits and achievements of these therapies is long overdue.

One of the alternative approaches to mental health is goes far beyond the mere sub-



orthomolecular psychiatry. The term "orthomolecular" was first used by Nobel Prize laureate Linus C. Pauling in an article written for Science magazine in 1968. Stemming from the Greek word ortho, meaning "to correct," the term is used by Dr. Pauling to refer to the treatment of biochemical imbalances through the use of vitamins, minerals, amino acids. and other naturally occurring health and correct any existing imbalances that may be causing disease.

This approach, however,

stitution of vitamins for medicines. Orthomolecular physicians believe that by chance of harmful side effects and a greater probability that the substances will be genuinely therapeutic.

Orthomolecular medicine medicine in its diagnostic techniques. Conventional psychiatry approaches diagnosis from a purely symptomatic point of view. While it does recognize that certain biochemical imbalances or "organic" factors may cause certain mental conditions, mainstream psychiatry will ordinarily not demand specific physiological tests to confirm that the patient actually has the imbalance believed to be causing the problem. Traditional psychiatry just assumes that the imbalance is present if a patient is diagnosed as having the corresponding disease. Orthomolecular psychiatry, on the other hand, not only requires such

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tests, but also insists on looking at diet, glandular functions, glucose metabolism, and a whole host of other factors that may ultimately be responsible for the detected imbalances.

Another difference between traditional and orthomolecular psychiatry is the attitude each has regarding the use of drugs. While traditional medicine considers drugs to be the treatment of preference, the orthomolecular approach, in most cases, is to use drugs only as a last resort, or in an emergency situation. This approach, most orthomolecular psychiatrists agree, is more consistent with the directives of the Hippocratic oath, which states, "First do no harm."

Dr. Bernard Rimland, a research psychologist and director of the Institute for Child Behavior Research in San Diego, explains orthomolecular medicine by contrasting it to what he calls "toximolecular" medicine. He points out that if all the contraindications, side effects, and adverse reactions due to drugs were deleted from the Physician's Desk Reference, the comprehensive drug index would be about a quarter inch rather than three inches thick. Drugs used in the treatment of mental disorders are particularly good examples of this. The adverse reactions and contraindications alone for Smith Kline & French's major

tranquilizer Thorazine (chlorpromazine) take up a full two pages of fine print in the P.D.R. This is one of the primary reasons that orthomolecular practitioners began to question the propriety of using these drugs before safer and less toxic avenues of treatment had been exhausted. Vitamins, in contrast, have very few side effects; these usually occur only when massive doses are taken, and disappear as soon as the dosage is diminished or discontinued. So in the end, even if the patient has not been helped by the therapy, he is at least no worse off.

According to Dr. Michael Lesser, a preventive-medicine expert in California, another drawback to traditional psychiatry is the emphasis it continues to place on psychotherapy, or "talk therapy." While he does not deny the value of psychotherapy in some situations, Lesser believes that it is absolutely necessary to first conduct the appropriate tests to certify that the psychiatrist is dealing with a purely mental problem, rather than a biochemical upset.

Orthomolecular psychiatry is now being used by a number of doctors to treat a wide variety of "mental" disorders. Does it really work? Are its results better than those of traditional psychiatry? Schizophrenia is among the most difficult psychiatric conditions to treat. It is characterized by such symptoms as delusions, hallucinations, incoherent thought patterns and speech, and catatonic behavior. Orthomolecular psychiatrists have found that some severely ill patients suffering from what is traditionally diagnosed as schizophrenia, have marked deficiencies in certain nutrients. The pioneers in this field were doctors Abram Hoffer and Humphrey Osmond, who, as early as 1952, conducted a double-blind study (the first ever performed in the field of psychiatry) on the effects of megadoses of vitamin B₃ (in the form of niacin) on schizophrenic patients.

Hoffer and Osmond's study involved 30 randomly selected patients, some of whom were given a placebo and some of whom were given vitamin B₃ in the form of niacin. During the course of the experiment, the researcher found that the placebo patients were well only 48 percent of the time, while the patients receiving the vitamin were well 92 percent of the time. After monitoring the patients for five years, Hoffer and Osmond found that the number of niacin patients still well was almost double that of the others.

Hoffer recalls a striking case history of a patient on vitamin B₃ therapy. "Now, this was a woman," he begins, "who had spent 13 continuous years in a mental hospital from 1939 to 1952, without a response, despite every treatment then known to psychiatry. Eventually they had to give her a series of shock treatments every six months. In 1952, as part of our research program, I took her into my home, where she began to work for us. I started her at that time on niacin, which is vitamin B₃.

"She improved dramatically over the next two years, although she had to be completely resocialized. Having been in the hospital for so long, she had forgotten how to use the telephone, how to get into her car, how to shake hands. In 1955, she was well enough to leave, and got a job at the university hospital on their cleaning staff. She stayed there until retirement just a short time ago at age 65.

"With the niacin therapy, she was converted from a chronic, perpetually sick schizophrenic to a working, contributing member of society. Had she remained in the hospital, her medical care would have cost the government almost \$1 million. Instead, over the past 30 years, she has been working and paying taxes, and has accumulated enough pension so that she may retire and live comfortably now."

Hoffer is not the only psychiatrist to report impressive results in treating schizophrenic patients with niacin therapy. Michael Lesser cites the example of a patient he calls Ted: "He had fantasies that he was a very important man. He drove around in rented Cadillacs, which he charged on his credit cards, and took all his friends to Las Vegas; and [he] heard voices and did a lot of bizarre things. So bizarre, in fact, that one of his car-leasing schemes got him in trouble

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with the law, and he was in legal trouble when I first saw him.

"We put him on niacin, along with other nutrients and a high-protein diet, since the niacin seems to work better with a high-protein diet. He cleared up almost immediately and stopped hallucinating. He went off to prison to do his time, but he became an honor prisoner; and the last I heard, he was completely recovered."

According to Lesser, orthomolecular therapy is most successful when the psychiatrist is able to intervene during the illness's early stages. Of another case, Lesser says, "It was very fortunate that this premed student came to see me when he did. He broke up with his girlfriend and sort of fell apart—started eating a lot of junk food and soon started hearing voices and behaving bizarrely and couldn't concentrate. He was a straight-A premed student, but his grades fell off very severely in his last quarter because he was getting ill.

"He came to see me in desperation. I put him on a high-protein diet and on large amounts of niacin, and within a week, he cleared up and stopped hallucinating. He went on to medical school, and he called me recently to let me know that he had

graduated successfully."

One of the most significant points made by these examples is that when orthomolecular psychiatry is effective, it is capable of actually getting to the root cause of a disease, rather than simply masking its symptoms. While the orthomolecular physicians are hesitant to say that the patient is "cured," nevertheless, by correcting any causative imbalances in the body, the results of orthomolecular therapy can be long lasting. Moreover, side effects of megavitamin therapy are very minor when compared to those of traditional treatment.

Orthomolecular therapy is, of course, not a cure-all. Some of the more severe cases of schizophrenia—those in which the patient manifests paranoid delusions—are very difficult to treat by any method. While some may respond to the administration of certain vitamins or amino acids, or a correction of certain biochemical imbalances, others may not. Even in cases where orthomolecular therapy has not yielded promising results, it can still work as an important adjunct to traditional treatments. For instance, recent studies indicate that patients who are given Haldol, an antipsychotic drug, appear to have better results when it is administered in conjunction with vitamin C. which is an important coenzyme in some of the sophisticated functions of the brain. So while the mysteries of schizophrenia are far from solved, we may be closer to unraveling them through the advances of orthomolecular medicine.

Practically any nutritional deficiency that affects the mind—and almost all do in one way or another—can cause anxiety. The most common type of anxiety reaction today is called neurosis, neurotic anxiety, or anxiety neurosis. In the treatment of this disorder, Lesser does something that most traditional psychiatrists would never consider doing.

"When I see a patient suffering from anxiety neurosis, which is generally some anxiety fatigue, some phobias, and some depression," says Lesser, "I order a glucose-tolerance test. In a recent review of my anxiety cases, I found that 92 percent had abnormalities in their glucose tolerance. So I have come to see anxiety as a message from the body that the blood-sugar metabolism is in disrepair. Rather than getting involved immediately in looking for the oedipal or pre-oedipal fantasies that have created this problem, I go immediately to my nutritional orthomolecular approach. I have found that



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this is a very helpful way of speeding up the whole therapeutic process.

"If the patient is hypoglycemic, they need to be put on a hypoglycemic diet, which is one that is adequate in protein, with frequent small meals throughout the day because you have anxiety attacks when the blood sugar gets low. Eating frequently keeps the blood sugar from dropping too quickly."

However, adds Lesser, "It may take months to clear up the condition, because the body has been often run-down for a number of months or years, and you have to gradually repair all the cells in the body. The old cells have to die off and be replaced by new ones that are better nourished."

In addition to using vitamins and other nutrients to treat anxiety disorders, orthomolecular psychiatrists may, where appropriate, incorporate different methods of relaxation, exercise, and stress management.

For the past 30 years, psychiatry has been aware that certain biochemical changes that take place in the brain can both influence and reflect fluctuations in our moods. Although these mood swings

can originate in either the mind or the body, the end result is the same: a change in the delicate biochemistry of the brain, which governs how we feel at any given moment. It is only in the last ten to 15 years, however, that some of the specific brain chemicals involved have actually been isolated. Figuring prominently among these chemicals are substances called neurotransmitters, which are responsible for relaying messages between the brain and the rest of the body.

Regarding the regulation of moods, scientists have found that a large number of depressed people have significant brain deficiencies of norepinephrine and serotonin. These neurotransmitters belong to a chemical group called the amines, which are responsible for the control of emotions, sleep, pain, and many of the body's involuntary functions such as digestion. Almost 90 percent of these amines are found deep in the brain, and the normally functioning body has a recycling system called "reuptake," by which each nerve cell takes back some 85 percent of the expended neurotransmitter for future use once the chemical reaction has been completed.

The antidepressants prescribed today are designed to somehow affect the amount of neurotransmitters available in the brain. When a traditional psychiatrist arrives at a diagnosis of depression, more likely than not, the next step will be to put the patient on antidepressant medication. Most of these drugs are not without serious side effects. Under its listing for Elavil, for instance, the P.D.R. mentions the following contraindications:

- It should be used with caution in patients with impaired liver function.
- Users may experience cardiovascular adverse reactions, including both hypo- and hypertension, myocardial infarction, arrhythmias, and stroke.
- It may cause central nervous system and neuromuscular reactions, including disturbed concentration, disorientation, delusions, hallucinations, excitement, anxiety, insomnia, nightmares, numbness, tremors, and seizures.
- Other adverse reactions include blurred vision, bone-marrow depression, nausea, testicular swelling and gynecomastia (breast development and possible lactation) in men, breast enlargement in women, dizziness, fatigue, headaches, baldness, and the elevation or lowering of blood sugar levels.

Because suicidal tendencies are a frequent characteristic of depression, one of the most serious problems associated with antidepressants is the potential for drug overdose. The P.D.R. warns that until significant remission occurs, "potentially suicidal patients should not have access to large quantities of this drug. Prescriptions should be written for the smallest amount feasible." The P.D.R. states unequivocally that "deaths by deliberate or accidental overdosage have occurred with this class of drugs."

Because both the neurotransmitters norepinephrine and serotonin are formed from amino acids that are normally present in our bodies and in the foods we eat, orthomolecular psychiatrists believe that it makes more sense to try to treat depression with amino-acid supplements than to rush to prescribe psychotropic drugs that often have side effects worse than the depression for which they were prescribed.

In her recent book, *The Way Up From Down* (Random House, 1987), Dr. Priscilla Slagle outlines a safe and easily implemented program of treatment for depression using amino acids and the other necessary precursors for the production of norepinephrine and serotonin. She is careful to emphasize that people who are severely depressed should follow the program under the supervision of a physician. It is not advisable for those who are already on antidepressant medication to stop abruptly, for withdrawal symptoms may occur.

Slagle explains the biochemical basis of the program and how it addresses depression: "It consists of taking an amino acid called tyrosine, which in the presence of certain B-complex vitamins, minerals; and vitamin C will convert into norepinephrine in the brain. This neurotransmitter not only sustains positive moods,

but it also helps our concentration, learning, memory, drive, ambition, motivation, and other equally important qualities. Additionally, it helps to regulate food- and sexual-appetite functions.

"The other amino acid used in the program is tryptophan, which forms serotonin in the brain, provided that the requisite cofactors—the B vitamins, minerals, and vitamin C—are present. In addition to sustaining mood, tryptophan also has other functions, such as controlling sleep and levels of aggression. People who are quite aggressive, irritable, or angry are often suffering from a marked deficiency in serotonin. Indeed, very low levels of serotonin have been found in the brain of suicide victims at autopsy.

"With these two amino acids, a good multivitamin-mineral preparation is taken to provide all the nutrients necessary to catalyze or promote the conversion of the amino acids into the neurotransmitters."

According to Slagle, there are many factors in our lives that may deplete the nutrients required by the body to form norepinephrine and serotonin. "Excess caffeine," says Slagle, "and by this I mean any more than one and a half cups of fairly strong brewed coffee, can deplete the B vitamins, particularly B₁, as well as the minerals magnesium and iron, which are critical in the formation of the neuro-

transmitters. Sugar depletes vitamins B_1 , B_2 , and B_6 , as well as magnesium and iron. . . . It is very important for people to know that perhaps the four cups of coffee or the Hostess Twinkie or the candy bars they had this morning are related to the low mood they are having this afternoon."

Slagle and other orthomolecular psychiatrists also recognize stress as a factor in depression; but they take this insight a good deal further than most conventional psychiatrists. Most people, as Slagle points out, tend to associate depression with what are called "major stressors," such as the loss of a loved one, being fired from a job, or any other circumstance that can upset our lives in a very significant way. But even the stresses associated with everyday living can deplete the vitamins, minerals, and amino acids essential to our emotional equilibrium. If enough of these are used up, the production of neurotransmitters will be adversely affected, rendering us slightly depressed and more vulnerable to the next round of stress, which may deepen our depression. If the cycle is not broken, we may slide into full-blown depression or even gravitate toward suicidal impulses.

Last but not least, orthomolecular psychiatrists point out that depression can often occur as a side effect of many prescription medications, including antibiotics, antiarthritic pills, blood-pressure medication, birth-control pills, tranquilizers, and even aspirin. Often when people are given these medications, they are not warned of the possibility that they may experience depression as a side effect. Slagle, together with most other orthomolecular psychiatrists, believes that rather than ignoring these side effects or waiting for them to appear, whenever a prescription drug is given that has an adverse reaction such as depression listed in the P.D.R., a nutritional program should accompany the prescription in order to replenish the particular vitamins and amino acids that may be depleted by taking the medication.

In short, for orthomolecular psychiatrists, the first line of defense against depression is a nutritionally adequate diet. If mental illness should strike, the first plan of attack is not psychotropic drugs, but a carefully planned program designed to supply the body with the nutrients it needs to restore its own internal balance.

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