

# THE VITAMIN B-3 THERAPY:

## A SECOND COMMUNICATION TO A.A.'s PHYSICIANS

FROM BILL W.

February 1968

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Note: This is a second printing of 5,000 copies - June, 1968

## THE B-3 THERAPY:

### A Second Communication

#### and Progress Report

(As of January 1968)

Dear Physicians:

Two years ago, I mailed you a brochure concerning the Vitamin B-3 therapy - "A Promising Treatment for Schizophrenia and Its High Relevance to the Treatment of Alcoholism." The basic pioneering work of my research friends, physicians Drs. Abram Hoffer\* and Humphrey Osmond\* in the field of serious schizophrenia was outlined, and emphasis was laid on the probability that B-3 would be highly effective with many alcoholics suffering the less serious and formerly undiagnosed forms of this malady - the large incidence of which had been revealed among their hospitalized alcoholics.

You will be interested to learn that in the interval since my first letter there has been a great expansion in the use of B-3, which now includes several thousand individuals, several hundred physicians and over 100 institutions.

During the first half of 1966, B-3 purchases at two pharmaceutical wholesalers appeared to be coming largely from individuals. Then many of these individuals began to tell their own physicians about B-3. For example, one Eastern wholesaler reported that in January, 1966, he had received only 31 orders of B-3, (500 tablets, 500 mg. each). Only three of his purchasers that month were doctors. Six months later - June 1966 - this same wholesale outlet reported orders of 652 containers of niacin and nicotinamide. About 25% of this amount had been ordered by physicians.

In the calendar year 1966, the Eastern wholesaler alone reported 5,100 orders for B-3. His sales in the first half of 1967 ran at the average rate of 650 orders monthly, and have probably exceeded 9,000 for the full year. A Western wholesaler has had just about the same experience. Hence the combined sales of these two outlets alone have approximated in 1967 18,000 containers (all of these the 500-tablet size - 500 mg. each).

Making allowance for additional outlets, it seems reasonable to suppose that total niacin sales for the year 1967 have amounted to 24,000 orders of 500 tablets, 500 mg. - as compared with almost none in 1965.

Beginning in the summer of 1966, a new growth factor entered the B-3 therapy field. By this I mean institutions, such as general hospitals with psychiatric departments, mental hospitals, rehabilitation centers for alcoholics, veterans facilities, A.A.-managed "drying-out" places and A.A. connected places for hospitalization.

During the first half of 1966, only two institutional users were reported: Guest House, a rehabilitation facility for alcoholic priests at Lake Orion, Michigan, and the North Nassau Mental Health Center at Manhasset, L. I., N. Y.

Dating from mid-summer 1966, more and more institutions put in an appearance as niacin and nicotinamide buyers. Two wholesalers report that, as of January 1968 their lists include over 100 such facilities. This rapidly accelerating interest has been most surprising, considering the institutional apathy and lack of knowledge which had been the rule for many years past.

\* Dr. Abram Hoffer - 800 Spadena Crescent E., Saskatoon, Sask., Canada.

\* Dr. Humphrey Osmond - N.J.I.N.P. - Box 1000, Princeton, N. J.

The astonishing expansion in the use of B-3 that has taken place in only two years becomes even more striking when we consider that there has been no public advertising at all (since B-3 is non-proprietary). Niacin costs the average massive user only about ten cents per day.

This phenomenon is scarcely the expression of a passing fad, nor is it due in any large measure to personal influence on my part. Since there are only 1500 of my original brochures in circulation, it seems probable that a large majority of the present users have never read it.

Further evidence that the vitamin is being bought on its actual merits is shown by the very large numbers of reorders reported by wholesalers. For example, a check back by one firm revealed that 70% of his purchasers in all categories were reordering regularly.

While the foregoing figures do not of course establish the scientific merits of the B-3 therapy, they do nevertheless strongly suggest that thousands of people are now receiving large and continuous benefits.

Certainly a considerable test of the Vitamin B-3 therapy is going on among American and Canadian physicians and institutions; the B-3 treatment has been lifted out of its long-time obscurity and is now being given a fair and sustained trial in its several treatment uses.

Treatment interest in the vitamin has already extended far beyond schizo tendencies in alcoholics. Therefore this presentation will also try to acquaint you with the newer possibilities that have unfolded — both in emotional and physical areas of illness. In consequence it is hoped the material shown herein will be found by many of you to be of much wider use and interest than was the content of my earlier "Communication."

This report is private and not intended for public distribution. Nor is this project a function of A.A., as such, or of its World Service Headquarters.

Please, therefore, address any correspondence concerning B-3 to Bill W., P.O., Box 451, Bedford Hills, N.Y. 10507 — where I maintain an information service for this work.

Because of A.A.'s tradition of no controversy, non-endorsement and anonymity at the public level, I shall be most grateful for the cooperation of all readers in avoiding any public mention of my part in the B-3 undertaking.

Devotedly yours,

Bill W.

P.S. In addition to the physicians who report in coming pages, there are also many AA doctors who have written of their successful results with B-3 therapy but whose reports could not be included because of space limitations. This background information has been most helpful in preparing a second "Communication" and I wish to thank them for their effort and enthusiasm.

P.P.S. The information center which distributes this publication is a nonprofit venture supported by a few of my friends. Our budget is therefore small, and the demand, largely from physicians, for additional brochures is now becoming so great that it seems right to let our readers know that the cost to us — in terms of printing, postage, wrapping, and general overhead for servicing — will run at about \$1 each for the 5,000 copies of this, our second production.

However, there will be no objection if readers care to make additional reprints of those parts of this monograph which are especially interesting to them, provided that such copies are clearly marked "Not For Public Distribution."

## PROMISING EVENTS IN THE B-3 FIELD

(1966-1967)

Ever since 1952, my research friends Drs. Hoffer and Osmond have been trying to achieve clinical acceptance of their work on serious schizophrenia which was described in my first "Communication."

Until two years ago their basic research information was generally ignored by the medical profession at large; this, despite the publication of two double blind studies, 30 papers and several pamphlets and books. Nor would any U. S. university or institution send an investigator to Saskatchewan, where the original work had been done, for a firsthand appraisal. Widespread indifference, and sometimes hostility, was the state of affairs. Such a response to new findings is not unusual; the history of medicine is replete with examples of this kind.

It is therefore extremely pleasing to report that, in the last 24 months, a rapid and promising change has taken place; change which is now leading to a great deal more independent testing and public information.

Let me illustrate some of the newer developments:

The chain reaction of B-3 use among A. A. members came first. It was probably triggered in 1965 when I recommended the vitamin to a few friends I knew to be continually plagued by depression, tension, anxiety and lack of energy. Those who received marked benefits from B-3 made conscientious efforts to help fellow sufferers. For example, the large present consumption of B-3 in California can be readily traced to an original handful of A. A. enthusiasts.

A Texan member who learned about the massive niacin or niacinamide therapy from another A. A. was dramatically and rapidly relieved of a chronic depression. He then prepared 1000 mailing pieces on the subject and sent them to many physicians and hundreds of A.A.s in his area. The eastern wholesaler soon received large numbers of B-3 orders from Texas, and most of these continue to be repeated.

Another example: About 18 months ago I spoke to an old A. A. friend in the New York area who had endured years of acute depression. B-3 completely relieved his condition. He began to recommend the vitamin in a semi-organized fashion by actively searching out fellow A. A. sufferers. They in turn described the benefits they received to still others. In consequence my friend now estimates that some 400 people in his vicinity are now using B-3. His observation is that about 3 out of 4 who have tried the vitamin are getting worthwhile effects and that, in many cases the results have been astonishing.

So it is going, country-wide. The same phenomenon is beginning to repeat itself among A.A.s overseas. In Norway, Holland, Finland and Germany, England, Australia and South America, the B-3 therapy is now underway.

First Mental Health Center to use B-3. About March 1966, psychiatrist Dr. Dave Hawkins, Director of the North Nassau Mental Health Center at Manhasset, L. I. read my first "Communication" and it caught his interest. Employing more than a dozen psychiatrists, the Manhasset operation is of substantial size.

Dr. Hawkins and his colleagues adopted the pragmatic approach to the B-3 therapy. Because of the safety of the vitamin, they felt there was nothing to lose by trying the Hoffer-Osmond treatment upon their schizophrenics, and alcoholics with schizophrenia. Numbers of these alcoholics were sober in A. A. but miserable. Many others, though trying hard, were too emotionally ill to achieve continuous sobriety through A. A., nor indeed by any other approach.

Niacin or niacinamide was also given to numerous alcoholics who had not tested schizo, but who nonetheless were suffering the more ordinary varieties of depression, tension, insomnia, anxiety and exhaustion.

The net results of more than two years of B-3 experience at the North Nassau Mental Health Center are surprisingly good, indeed amazing: these will be detailed by Dr. Hawkins in his section of this

presentation. There is little doubt that he has created a highly effective treatment model — one that could easily be given a trial by innumerable other mental health centers throughout the world.

In January 1967, the North Nassau Mental Health Center and Brunswick Hospital sponsored a meeting at Amityville, L. I. Informal reports were presented by a dozen psychiatrists who had been using B-3 for significant periods of time. An expert discussion of "HOD" testing was also given by psychologist Dr. El Maligi of the New Jersey Institute of Psychiatry and Neurology.

Reports covering some 1200 cases of schizophrenia and alcoholic-schizophrenics were presented to the considerable audience of physicians and social workers. The favorable results of the B-3 therapy upon a large majority of these patients were impressive.

Dr. Russell Smiths' 20 month research on 507 alcoholics — fully covered by him in this report.

First A. A. Facility to use B-3: In early 1966, a copy of my original brochure on B-3 had reached an old friend, Mr. Austin Ripley, director of Guest House, Lake Orion, Michigan. This is a center for the rehabilitation of alcoholic priests. It has an enviable record of 82% recovery among 500 Catholic clergymen treated over a period of years.

Mr. Ripley immediately dispatched one of his medical staff to see Dr. Abram Hoffer at the University Hospital, Saskatoon, Saskatchewan, and another visited Dr. Humphrey Osmond at Princeton, where he is Director of the Institute of Psychiatry and Neurology for the State of New Jersey. Both Guest House physicians returned with positive reports and recommended that the B-3 therapy be added to the Guest House treatment program. All priests were first "HOD" tested and then placed on 3 grams or more of B-3 daily. This procedure has continued ever since. The HOD had shown that the alcoholic priests were 40% perceptually affected.

Mr. Ripley also began writing to former "graduate" patients, priests who had remained sober by means of Guest House plus A. A., but who continued to suffer much emotional instability. One of these, a Jesuit I shall call "Father Joe," was a striking case in point.

Father Joe, a Ph.D., professor of philosophy at Fordham University, had a lifelong depressive history. In spite of two years sobriety in A. A., he found to his consternation that his depressions were far worse, and almost continuous. Quite unable to teach most of the time, his life work was threatened.

Over two years ago, Dr. Hawkins gave him the HOD test and found his score to be highly abnormal. Niacin, 3 grams daily, was prescribed. This helped, but Father Joe remained far from well. The dose was then raised to 6, and finally to 9 grams, where it has since been maintained for over a year. On these higher doses he recovered completely; and has experienced an immense release of energy.

In late fall of 1966 Father Joe persuaded the president of Fordham to personally sponsor the appearance of Drs. Hoffer, Osmond, Hawkins and other physicians at a panel meeting before an audience of several hundred interested doctors, social workers, nurses, parents of schizophrenics and students. The audience reaction, as revealed in the question period, was exceedingly good. This made Fordham the first American university to place the B-3 therapy on public view.

Working closely with Dr. Hawkins, Father Joe next started a Schizophrenic Anonymous group in the New York area. This included both non-alcoholic schizophrenics and A. A. members suffering the malady. This original group expanded so rapidly that it was forced to break up into two groups, now consisting of over 60 members each.

Of the several "SA" groups now operating in the United States and Canada, these two, like the effective ones elsewhere, are based on the model of the first fully successful group started by Dr. Hoffer in Saskatoon. The headquarters of Schizophrenics Anonymous International is located there. (Box 913 — Saskatoon, Saskatchewan, Canada.) S. A. Groups such as these may finally develop everywhere as a means of after-care rehabilitation for serious cases of schizophrenia. Please note Father Joe's description of "S. A." in a following section.

The 1966-67 period has been marked by several more noteworthy events:

A popular book entitled "How to Live With Schizophrenia"\* was authored by Hoffer and Osmond. It is designed for the use of doctors, schizophrenics and their families. The first printing of 5000 sold out rapidly and the second is going fast.

The American Schizophrenia Foundation continues to enlarge its activities, and now maintains an information office at 230 Nickels Arcade, Ann Arbor, Mich. 48108, from which books, pamphlets, literature, and a monthly news bulletin are distributed. A list of physicians willing to take schizophrenic referrals is available. This facility is also forming local Foundation Chapters in the U. S. and Canada to raise funds for further research and education and the public response is already encouraging. The Chapters are largely composed of the families of schizophrenics.

Increased publicity on B-3 therapy. During the past two years, physicians working with B-3 have been asked to make many presentations at medical gatherings, and hospitals. Mounting public interest has already prompted several national TV and radio programs on this subject. These activities have stimulated a very large number of inquiries, some from physicians and psychiatrists, and many from distraught families. As of this writing, Drs. Hoffer and Osmond have received about 3,000 pleas for information and help. Other psychiatrists have also been deluged with calls for assistance. Dr. Hawkins has had to add several more psychiatrists to his staff to handle the increased patient load at the North Nassau Mental Health Center.

Use of B-3 in Relative Hypoglycemia (low-blood sugar). It has long been known that there is a large incidence of hypoglycemia among alcoholics. Because of its ability to help maintain proper blood sugar levels, B-3 is becoming a valuable treatment adjunct for this condition, a knowledge which may be a great boon to alcoholics who do not have schizophrenic tendencies. This illness will be discussed further on, quoting medical sources.

Niacin and the Heart. Ten years ago Dr. Edwin Boyle — a physician specializing in heart and circulatory ailments read a paper by Hoffer and Altschul announcing that niacin in large doses could safely lower blood cholesterol. Since then, he and his colleagues at the Miami Heart Institute have used niacin on some 1000 cases of elevated blood fats and cholesterol, all of them coronary patients. Of 160 of these coronary cases that Dr. Boyle has kept on niacin and under special observation during a ten-year period, only 6 have died, against a statistical expectation of 62 with conventional after-care.

Dr. Boyle states that more alcoholics die from cardio-vascular catastrophies related to abnormal fat metabolism than from all other causes combined. He also says that "from the strictly medical viewpoint, I believe all patients taking niacin would survive longer and enjoy life much more."

Scientific Validation Studies on B-3. The National Heart Institute, of the Institute of Health (U. S. Public Health Service) has recently initiated a study on 8500 coronary survivors. Four drug treatments are being compared to establish which is best for reducing recurrences of heart attacks. N. H. I. has selected niacin as one of the 4 most promising drugs available for prevention of cardio-vascular disasters which afflict 7 out of 10 white male professional people. This multi-million-dollar study in 55 leading heart centers in the U. S., Hawaii and Puerto Rico, assumes the safety of and potential benefit of massive niacin dosage.

In 1966, the National Institute for Mental Health finally made an on-the-spot investigation of the Hoffer-Osmond claims in the field of serious schizophrenia. In 1967 the authorities set aside \$350,000 to be spent in the next few years upon an independent study to determine the actual worth of the Saskatchewan findings. This appropriation has recently been increased to more than \$500,000. It is worthy of note that the cooperation of Hoffer and Osmond has been requested. An authoritative evaluation is now underway — a development long hoped for.

Other potential values of B-3 have emerged in the treatment of LSD and STP psychoses, senility, juvenile delinquency, severe malnutrition and joint dysfunctions.

\* The publisher is: University Books, New Hyde Park, N. Y. Price: \$5.95.

## SAFETY — DOSAGE — SIDE EFFECTS

As of this date, thousands of individuals are receiving treatment via the large dosage B-3 therapy. Several hundred physicians and psychiatrists, and more than one hundred institutions, are now exploring the use of massive B-3 therapy in the treatment of schizophrenia; alcoholics with schizo-tendencies, hypoglycemia and other metabolic disturbances.

It is increasingly clear that B-3 is becoming a valuable adjunct to the treatment of alcoholism, because such a large majority of problem drinkers are beset with these conditions which, since they can cause depression, anxiety, tension and exhaustion, often make it difficult if not impossible to achieve sobriety. Large numbers of sober alcoholics suffering from these same symptoms can also be greatly benefited.

Then, too, as it becomes more widely known that niacin acts as a safe preventive for coronaries, or of recurrences of them, the prospect for the use of B-3 therapy should become almost unlimited.

This state of affairs has aroused a certain amount of concern among certain physicians and medical groups. They object to the pragmatic treatment approach now in such wide use. They currently state that no top level, independent scientific evaluation has ever been made of the treatment results in these new areas, nor of the theoretical considerations involved. More importantly they raise the question whether vitamin B-3 in massive amounts is actually safe, when given continuously for years on end.

For these reasons many doctors are inclined to oppose the attitude of "let's try massive B-3 and see what happens." Certainly these are valid questions which deserve reasonable answers — particularly those questions addressed to the safety problem. Let us look at some of the answers:

It does not yet seem generally known that during the last twenty-five years the administration of massive doses of B-3 has been going on throughout a large cross section of patients, and that none of them have evidenced any serious or sustained damage to the observing physicians.

Most of the evidence of the long-time safety of B-3, rests upon the experience of Kaufman in arthritis, Hoffer and Osmond in schizophrenia, and Boyle in cardiac and circulatory ills. Kaufman began large doses of B-3 in 1941, Hoffer and Osmond in 1952, and Boyle in 1957. Kaufman's experience covers 1,000 cases, Hoffer and Osmond have treated over 1,000 cases, and Boyle 1,000. This is a total of over 3,000 patients. Many of them have used niacin and nicotinamide in these heavy doses during periods now ranging from five to twenty years.

Hoffer, Osmond and Boyle have repeatedly tested these patients on long-term B-3 usage for damaging side-effects and have found none. The late Professor Rudolf Alschul, has written an exhaustive monograph, covering niacin and niacinamide.\* He concluded that vitamin B-3 is a very safe medication indeed. In fact over 300 papers have been published dealing with the clinical use of niacin. It is so safe that even with the F. D. A. present policy regarding drugs, B-3 is a non-prescription substance.

As reported previously, the National Heart Institute's Coronary Drug Study on 8500 coronary cases selected niacin as one of four drugs to be used in determining which was most effective in preventing recurrence of coronary attacks. Certainly this wholesale application in the sensitive areas of coronary disease, bespeaks no serious concern on the part of the Institute about dangerous side effects.

The consumption of B-3 has risen to a probable 1,000,000 (500 mg.) tablets per month, over the past two years. Neither from the thousands of A. A.'s using B-3, nor from their physicians, have I received any report whatever of irreversible serious consequences.

\* "Niacin in Vascular Disorders" published by C. C. Thomas, Springfield, Ill.

## Dosage and Side Effects

As we have observed, the total experience with B-3 therapy has been very extensive. From this experience, there has arisen a considerable medical literature on the subject of dosages and upon the management of certain disagreeable side effects. Because this information is scattered through a wide array of medical papers it may be helpful to summarize the main features of these reports. The material presented below has been prepared in collaboration with Drs. Boyle, Hawkins, Hoffer, Osmond and Smith, and they vouch for its accuracy.

The usual dose of niacin or nicotinamide is three grams daily — two 500 mg. tablets after each meal. Obviously the aim of massive doses is not merely to repair a dietary vitamin deficiency. It is believed that these large amounts are the raw material, from which the body can manufacture certain other substances that it lacks for the remedy of the various ailments in which B-3 is effective.

For the most part, however, the chemical behavior of vitamin B-3 is still speculative and theoretical. Just how, chemically, niacin (though not nicotinamide) does reduce blood cholesterol levels and improves circulation, why B-3 can often remedy arthritic conditions and why, in hypoglycemia, it can check the abnormal drop of blood sugar, are little understood features of the vitamin. Treatment results show that B-3 does all these things, but the biochemist still has to tell us precisely how. Since B-3 is one of the safest medications known, there seems little need however to wait upon ultimate explanations before giving it a trial.

Though three grams daily is the usually prescribed intake, there are variants above and below this amount which should be noted.

In some cases of serious and chronic schizophrenia, the three-gram dose is of little effect. Sometimes six grams, nine grams or even 12 grams work very well where the lower dosage has failed. During the past two or three years, Hoffer, Hawkins, Smith and several others have used these extreme amounts with excellent results, and have observed little or no side effects.

There is additional evidence of non-toxicity. In tests on animals no toxicity appeared until five grams were given for each two and two-tenths pounds of body weight. On this basis, an adult human should be unaffected up to 250 grams daily. Dr. Hoffer once had a patient who tried suicide with 50 grams of niacin. Some indigestion was the only observable result. The same amount of aspirin would have been far more toxic.

Fortunately, extreme doses appear to be needed only by serious schizophrenics, and alcoholics in the acute withdrawal stage — classes of patients to whom large quantities of tranquilizers are continuously given, notwithstanding the demonstrable toxic effect of most of these substances.

The next practical question is: which form of B-3 (niacin or nicotinamide) should the physician recommend?

In most cases, niacin would be the preferred medication, provided the user can tolerate it. This is because niacin has the ability to keep blood cholesterol down, thus lessening the possibility of coronaries or recurrences thereof.

About 80 percent of those trying niacin can achieve a dose of three grams daily with no more inconvenience than a few days of rather heavy flushing. This is a normal reaction which finally wears off entirely and seldom recurs, except when the niacin is discontinued for a time and then resumed. Even so, the flush on these occasions is not equal to the original one.

In about 10 percent of those trying niacin, there is very persistent flushing, and rashes may appear, particularly in allergic type people. However, most individuals of this class can eventually take niacin, if they start out on a much smaller amount, say 250 mg. after each meal, and gradually work up to a full daily dose of three grams. A glass of cold milk at the close of each meal will ordinarily overcome the difficulties. The omission of hot beverages and hot baths until tolerance is reached will also minimize these annoyances.

There is also an additional resource against flushing which ought to be mentioned. This was discovered some years ago by Dr. Theodore R. Robie, a New Jersey psychiatrist, who has been treating schizophrenics with niacin, and with great success, for the past eight years. He finds that 4 mg. of Periactin will sometimes help reduce the flushing.

There are some people, however, who are simply unable to tolerate niacin at all. These can be switched to nicotinamide, which does not flush. The occasional nausea and stomach upset which sometimes occurs with both substances can be minimized by taking them with cold milk and by using antacid. In occasional cases of ulcerous bleeding, B-3 may have to be discontinued if it causes too much additional acidity.

Nicotinamide appears to be equally good so far as mental and emotional difficulties are concerned, and it does work well in arthritis. But it should be remembered that if the switch to nicotinamide is made, then the insurance against heart difficulties that niacin affords will be lost.

In choosing between niacin and nicotinamide, there is still another factor that needs to be considered. When a schizophrenic patient starts the B-3 therapy, it is often better to begin with nicotinamide. If given niacin, the flushing experience may frighten him into discontinuing it, especially if he is given no prior explanation. If his reaction has been at all marked, he may then refuse to take even nicotinamide, no matter how strong the persuasion. Other individuals who are not schizophrenic, but have severe emotional symptoms, may also react in the same way. It may be better to start this type of patient on nicotinamide first, and then switch to niacin for its additional benefits, particularly in the over-forty age group.

In addition to the disagreeable though harmless side effects, there are others still to be considered.

For example, rare instances have been reported where palpitation followed the ingestion of B-3. Dr. Boyle suggests that the procedure of taking B-3 after large meals and with cold milk (preferably skimmed) will usually eliminate this reaction. In a few cases, edema, usually swelling in the ankles has turned up. People with diabetes should start treatment gradually under medical supervision since the ability of B-3 to alter blood sugar levels would sometimes necessitate additional regulating of insulin dosage. Both Dr. Boyle and Dr. Hoffer report however that if precautions and progressive dosage are observed, most diabetics can safely obtain the benefits of B-3.

Another question often asked is whether niacin or nicotinamide interferes with other medication being given. According to the physicians who have had the longest experience, B-3 does not adversely affect any other treatment — save one exception which Dr. Boyle discusses further on. Neither does it have to be withheld from persons in poor general health.

B-3 heightens the effectiveness of tranquilizers. Here the result is clearly beneficial. If tranquilizers must be given, then lesser dosages will be just as efficient. This has been found to be of great advantage in treating D. T. patients. B-3 not only reduces the psychotic period, it also diminishes the need for tranquilizing agents.

Here are a few typical examples of mistaken "side effects." Three of our A. A. physicians at first thought they were observing various dangerous reactions. One of them assumed that a patient's eyesight had been adversely affected by B-3. The actual trouble turned out to be measles. While taking B-3, another patient contracted hepatitis and the B-3 was promptly ordered discontinued. Hospitalized, he made an excellent recovery from his contagious hepatitis. Only then was it revealed that the patient, a B-3 enthusiast, had been taking his three grams of the vitamin daily all during his illness! He had smuggled the tablets into his ward. A third A. A. physician was sure he had clinical evidence of liver damage. But this proved to be an appearance only which disappeared promptly when B-3 was discontinued. Boyle had long before observed this phenomenon, and thinks it can account for numerous reports in the literature of liver injury. He therefore suggests:

"Niacin and nicotinamide should be discontinued for a week or more before taking a thorough and sophisticated physical examination. This is because B-3 will, in some cases, give a false-positive liver function test, such as elevated S. G. O. T. and alkaline phosphatase. These tests return to normal in hours after the last niacin dose." Liver biopsys have shown normal liver in all such cases," reports Dr. Boyle.

A PRELIMINARY REPORT ON MASSIVE NIACIN  
THERAPY OF ALCOHOLICS IN MICHIGAN

by

Russell F. Smith, M.D.

Medical Director: Michigan State Boys' Training Schools, Whitmore Lake, Michigan;  
Consultant: Brighton Hospital, Detroit, Michigan; Guest House, Lake Orion, Michigan;  
Special Health Care Consultant to Michigan State Department of Social Services

A complete evaluation of our clinical experience to date with massive vitamin B-3 therapy administered to alcoholics will soon be published. Our study has not only brought to light another valuable clinical application of massive niacin therapy, but also insights into the fundamental dynamics of the alcoholic disease. The impressive reports of the work already done with B-3 in schizophrenia in no way prepared us for the results encountered in our alcohol series.

These results are all the more remarkable because of the handicaps given niacin by the mechanics of our study. To eliminate certain research problems, our series was loaded with hard core, treatment resistant, difficult alcoholics. The criteria used to classify patient responses to niacin were made rigid to simplify evaluation. Our original intent was merely to sample niacin's effectiveness and to determine if further work in this area was justified. The study was designed to gain maximum information from minimum effort. In a word, further work with niacin definitely is in our opinion, worthwhile.

We are now able to report 507 alcoholics treated from six months to one and one half years with niacin, and with niacinamide in the few cases where niacin could not be tolerated.

Of these 507 patients, 103 were classified as excellent results, 240 good, 98 fair and 66 poor. On an average of 6 grams of this well known, common, cheap vitamin a day, 87 percent of our group of hard core treatment resistant alcoholics derived benefit. Even more unexpected was the 20 percent of this group who maintained complete abstinence where this had been impossible before, despite frequent and often excellent therapy.

Comparing these results with other therapeutic agents, commonly used in the treatment of alcoholics, B-3 far surpasses them in effectiveness. This comparison becomes even more impressive when we also remember that many drugs today used in the treatment of alcoholism have a high potential for abuse and for suicide. When the niacin therapy is used instead, these serious risks become virtually non-existent — a great advantage indeed.

This dramatic response led us to speculate as to niacin's action in the alcoholic. Other observations commonly reported by our patients further stimulated our interest. Many who failed to sustain complete abstinence reported unusual responses to alcohol during intoxication and withdrawal. Many reported that while taking niacin at this large dosage they experienced decreased tolerance to alcohol and found sustained drinking difficult to achieve. Others were observed to have a marked decrease in expected withdrawal symptoms as demonstrated by far less needed medication than had been their previous experience. Many others reported better sleeping habits and the absence of previous periodic mood swings from agitation to depression. Such reports certainly suggest an important role for niacin in the processes responsible for alcohol tolerance and withdrawal.

Our opinion to date is that niacin is effective and safe, and with increased sophistication could become a highly useful therapeutic tool in the treatment of alcoholism. These results make us feel that more rigidly structured studies should be carried out along with basic investigations to discover niacin's implications in the underlying alcoholic process.

Initially two patient groups were selected for this study. A third group was added shortly afterward, primarily because of patient demand for niacin therapy.

"However, if one is taking a life insurance examination, he may get a black mark from his company on this score — a conclusion by the doctors there that he may find hard to reverse."

There is nevertheless one condition, according to Dr. Boyle, in which there is a marked contraindication. "When an individual is under treatment for high blood pressure and a Reserpine-type medication is being used, then niacin should be taken under careful supervision. If a full dose of niacin is taken, a sudden drop in blood pressure may occur. Therefore it is very important to inquire of each prospective user of niacin whether he happens to be taking a Reserpine-type treatment for high blood pressure. If so, he should not take niacin without medical supervision and should start with progressive dosages."

Finally, it should be observed that a few people — very few indeed — cannot tolerate either niacin or nicotinamide. With them, the consequences are disagreeable, continuous, and cannot seem to be outgrown. So far as the B-3 therapy is concerned, they are simply out of luck. Of course there is nothing exceptional about this. All sorts of harmless medications and foods (aspirin, strawberries, shrimp etc.) will provoke adverse reactions in some people. This is too bad, but certainly nothing to get excited about.

With all these professional assurances of the long-time safety of niacin and nicotinamide, there seems no reason why the B-3 pragmatists should not continue to meet the ever-growing demand for treatment. There seems no good excuse why uncounted sufferers should have to wait years for a complete top level "scientific" evaluation of the B-3 therapy in all its ramifications — however desirable this would be.

Therefore it is good to know that in the view of many doctors, a failure to try this perfectly safe treatment, especially where other accepted methods have largely failed, would actually amount to an unethical attitude.

**Note: For the lay reader who may be confused by B-3 terminology:**

Niacin and nicotinic acid — are identical substances.

Niacinamide and nicotinamide — are also identical terms.

In these pages they have been used interchangeably by the reporting doctors.

The first two groups were selected because they constituted a hard core of alcoholic patients well known to us. Selection on this basis was for several reasons. (1) These patients had demonstrated repeated resistance to all usual forms of therapy. All had been hospitalized frequently, had experienced many treatment attempts, and treatment failures. Therefore we felt that any improvement would be easily detected. (2) Because of previous failures on supposedly effective drugs, we felt the placebo effect here would be negligible. (3) Since this group was well known to the study observers, good rapport had already been established, as evidenced by their repeatedly returning for treatment even in the face of failures. Since each patient's previous behavior was well known to us, we felt our clinical observations would be valid appraisals for our purposes.

The first of the two initial groups was made up of alcoholics frequently rehospitalized over a long period of time at a specialized care facility which has an excellent reputation for successful treatment of a majority of its patients. The second group was composed of an out-patient practice made up primarily of patients given up as hopeless, by other care units. Thus, by self selection we had available a highly resistant group of alcoholics who were using, or had available to them, all the recognized treatment techniques, and whose histories were long, well documented, and well known to our observers. Under these conditions we felt that most variables would remain constant since no change in therapy was made except the addition of niacin with as little explanation to patients as possible. Each patient's own history and past performance was considered a sufficient base line control for the aims of this investigation.

The third group (from another facility), actually volunteered because of their unanimous interest in the B-3 treatment. This group shared, with the two previous ones, long and well documented histories and ease of follow up, and had a common vocational and professional link. These patients were diagnosed earlier, treated longer, and followed more closely than any other group of alcoholics known to us. Unlike the first two groups studied, the severity of their alcoholism was generally less. So this was a group of very well motivated and well documented patients and they also represented nearly the entire spectrum of the alcoholic disease. It was possible to use this particular group of patients as controls that had less social and physical involvement in their alcoholic problems than the first two study groups.

The techniques employed in the administration of niacin and follow up were slightly different in each group. Although massive B-3 had long been offered by a few psychiatrists as a valuable adjunct to the treatment of schizophrenia, it was felt that in these particular alcoholism studies no attempt at correlation with schizophrenia would be attempted. We had observed that during detoxification, many alcoholics often manifested temporary perceptual aberrations, therefore we felt that the HOD test for schizo tendencies might register the alcohol toxicity as well, and so would not be a reliable index of schizophrenia.

Because no comprehensive studies of B-3 treatment for alcoholics had ever before been made, it became necessary to develop new criteria for the evaluation of our own results.

Since our observers were specialized professionals in the alcoholism field, with five or more years of experience, we believed the use of clinical observations would be valid. The evaluations reported here are the collective opinions of the many people involved. Rapport between patients and observers was uniformly good. This was evidenced by their long contact in a therapeutic setting, this despite their previously poor response to treatment. With such excellent and prolonged communication, the use of subjective responses proved to be valuable and reliable.

Our results are reported here in four response categories, poor, fair, good and excellent.

1. Results were considered poor if objective improvement was not seen, and subjective improvement was not reported.

2. Fair results, by our criteria, consisted of reported substantial subjective improvement without observed objective change.

3. The good result group included those who had reported good subjective response coupled with observed objective improvement.

4. To be considered an excellent result, dramatically good subjective and objective responses were necessary. To further qualify in this last category, abstinence had to be sustained for the duration of the study.

Positive subjective responses to niacin were specifically defined. Feelings of increased well being, improved energy output, or stabilization of mood were considered fair subjective responses. Reported improvement in memory function, learning ability, problem solving, or coping ability were considered good subjective results. Unsolicited comments of some patients concerning improvement in arthritis, musculo skelical disease, angina, senile memory defects, and certain other unrelated conditions, although encountered, were not considered in cataloguing responses.

Objective changes in patient behavior while on niacin were considered and noted. These included: reduction in the amount of medicine necessary to control withdrawal, reduction in necessary medication during post withdrawal, improved sleep habits, improved appetite, improved inter-personal relationships, improved job performance, and longer periods of successful abstinence. In our "excellent" category, not only was complete abstinence required, but also a discontinuance of all other forms of drug therapy, for the duration of the studies.

The following table and observations represent the outcome of our study of 507 alcoholics who took niacin from 6 to 20 months. The average treatment time of this group was ten months. Doses were begun at 3 grams daily and adjusted by tolerance and response up to 20 grams. This study group was taking, on the average, six to eight grams of niacin daily at the time of evaluation.

It should here be noted that the originally proposed study group comprised 651 alcoholics. Naturally there was some attrition - some patients were lost in follow up, there were prison sentences, some refused to cooperate, several died, etc. However, 507 remained, and these were evaluated as follows:

	Poor	Fair	Good	Excellent	Total
Outpatient Group	18	70	109	42	239
Hospital Group	40	19	111	46	216
Sanitorium Group	8	9	20	15	52
Totals	66	98	240	103	507

The above results demonstrate a significant effect by B-3 on the alcoholic disease process. Considering the type of patient involved, the results are even more impressive. Most dramatic are the number who have maintained continued abstinence from alcohol since beginning niacin therapy. This nearly 20 percent response was hardly expected from a group of known long-standing treatment failures. The result is even more impressive in the light of the knowledge that this same group has been able to discontinue all other medication. The number who have demonstrated observable objective change is also remarkable, although somewhat less dramatic.

It would therefore seem that niacin therapy has well demonstrated its usefulness as a therapeutic tool in treating alcoholics in the group just studied. Certainly more detailed and better controlled studies now seem warranted.

Although the primary objective of this paper is not to report individual cases, a great number do exist in this study that are worthy of note. However a few of the more conspicuous will be cited:

1. W. J. a 40-year-old businessman, unable to sustain abstinence for more than a few weeks was gradually raised to 20 grams of niacin a day. He was under treatment for his emotional problems and alcoholism by an area Veterans Hospital. Initially the Veterans Hospital refused his request to provide niacin. However his response was so obvious, even to their psychiatric staff, that this request was subsequently granted.

2. J. F. was a college instructor in English who had not taught a complete term in the last five years. On a dose of 12 grams of niacin daily he has now completed one successful year of teaching.

3. T. M., a 55-year-old accountant, who was plagued by wide emotional swings from mania to depression, had always tried to treat his problem with alcohol. But on a daily intake of 8 grams of niacin he has continued his abstinence, and has been able to entirely discontinue a frightening array of tranquilizers and antidepressants that he had been using alternately.

4. J. N. a 40-year-old painter has a schizoid background and a drinking history dating back to age 11 years. On a dose of 12 grams of niacin, and steadily decreasing amounts of antidepressants, he is now completing the first seven months of sobriety in his life.

We could cite many cases nearly as dramatic as those listed above, but this sample alone gives some reason for our mounting enthusiasm for the use of niacin or niacinamide as an adjunct in the treatment of alcoholics.

Certain striking general patterns have emerged from this study which deserve further clarification. It has been our observation to date that those patients who continue to have serious gastro-intestinal or vascular symptoms seem to derive little subjective and no objective response from niacin therapy. Those patients who have tolerated niacin best seem to fall into the "good" and "excellent" categories above. This clear pattern would seem to suggest wide variations in tolerance, and in possible need, for massive B-3. A possible systemic rejection of niacin or failure to use and remove it from the gut or systemic circulation may also exist.

In our recent study, efforts to persist in niacin therapy despite a continual adverse reaction, produced no beneficial results in such patients. It must be clearly borne in mind that in discussing these particular symptoms we are not referring to the usual initial and expected vascular flushing, and mild G.I. upset due to histamine. We are referring instead to those patients who, after a trial of several weeks seem quite unable to tolerate niacin in large doses. As a result of these observations we think we will be able to predict with some degree of accuracy which patients will respond well to the niacin therapy and which will not.

A very unexpected development was the loss of tolerance to large quantities of alcohol reported by some patients who began to drink again. Many reported being able to drink only roughly one half pint before becoming drowsy, very intoxicated, or falling to sleep. This ability to get a binge under way, even though many patients attempted this several times, deserves further clarification and investigation. Quite possibly, niacin may be intimately involved in the physiology of alcohol tolerance.

Ascorbic acid was not a part of our original treatment plan to test the merits of the B-3 therapy. During the study however, certain patients complained of sustained weakness, dry skin, occasional rashes or odd dietary cravings. Realizing that massive B-3 acts as a drug, and not as a vitamin, and that the high consumption of nicotine and coffee common to alcoholics can also cause increased consumption and therefore depletion of unstored Vitamin C, we tested the urine of these patients and found all evidence of urinary excretion of ascorbic acid, either visually or chemically, had ceased. We placed these particular patients on increasing doses of vitamin C until the excretion was visible. At this point (average dose 1000 mg. daily) all of the above described side effects disappeared. (At the present time the routine treatment of all our patients includes massive Vitamin C.)

One might conclude from this observation that, with increased sophistication in massive niacin therapy, certain imbalances caused by this form of treatment will have to be defined and compensated.

Several conclusions are evident from this preliminary experience with niacin. B-3 therapy clearly produces objective and subjective improvement in most alcoholic patients. Where improvement through niacin therapy does occur, it is frequently dramatic and sustained. Response to niacin therapy seems to be a clear cut matter with little middle ground. And often the response can be predicted in advance by the trained observer. Massive niacin therapy would seem to influence some of the basic physiologic mechanisms that underlie the alcoholic disease itself.

On the basis of our first substantial trial, we are now certainly convinced that the B-3 therapy deserves really serious consideration as an important adjunct to the treatment of alcoholics.

Further extensive investigation is imperative in more detailed and structured clinical trials, along with basic research into its modes of action. B-3 could well be the key with which we can open the door to many of the mechanisms of alcoholism itself.

## SCHIZOPHRENIA SECTION

This section deals with B-3 in schizophrenia and with alcoholism complicated by schizophrenia. It also portrays Schizophrenics Anonymous as an out-patient facility of considerable promise.

Within the New York area work in this field has centered for the past two years about Dr. David Hawkins, Director, and a dozen of his colleagues, at the North Nassau Mental Health Center of Manhasset, Long Island, New York. The "SA" groups of this vicinity were originated by Joseph R. - S. J., himself a recovered alcoholic and schizophrenic. These two men have created a successful working model - one that should commend itself for a trial by any mental health center.

As an introduction to Dr. Hawkins' comprehensive paper covering a two-year experience with B-3, I have included a letter written by him to an inquiring physician. Dr. Hawkins' answer was written after a year's use of the vitamin at Manhasset.

The contents of this letter strongly suggest that any mental health center could quickly and easily reproduce Dr. Hawkins' excellent preliminary results by simply adding massive doses of B-3 to treatments already in use.

Three members of the S. A. group formed by Father Joe, have written their "stories" for inclusion here. They were selected out of many similar reports because they were good examples of the effectiveness of the Dr. Hawkins-Father Joe model.

It was originally planned to have a "case history" section, compiled from the hundreds of letters that have been received from AA members during the past two years, detailing their successful experiences with B-3 therapy in the other treatment areas covered in this communication. Unfortunately it became apparent that space and expense would preclude such a section. I would like to thank each of them for their devotion and enthusiasm and for their letters of encouragement and gratitude.

THE NORTH NASSAU MENTAL HEALTH CENTER

1691 Northern Boulevard  
Manhasset, L. I., N. Y. 11030  
MA 7-7535

June 1967

Dear Doctor -

As Director of a large out-patient Psychiatric Clinic with a high percentage of alcoholics and schizophrenics, I was naturally interested in the Hoffer-Osmond approach to schizophrenia and I was also interested in what benefit Niacin might be to alcoholics. As a pragmatist I was only concerned whether it was clinically beneficial to our patients. I had no intention of proving anything scientifically, nor am I interested in it now. I was interested in the usefulness of this approach to three patient populations.

1. Alcoholics
2. Alcoholics with schizophrenia
3. Schizophrenics

The alcoholic seemed to clear up faster mentally and emotionally on niacin, and quite a number who had previously been unable to get sober did so after they started on B-3. Some felt no benefit and, therefore, discontinued it. It is quite likely that many who benefited from niacin were actually unrecognized borderline schizophrenics, and when their thinking cleared up they were able to "get" the AA program.

As you know, a reasonable percentage of alcoholics also have schizophrenia although Hoffer and Osmond say 30% in their study. I believe that this figure is too high for the general alcoholic population.

Alcoholics who end up in psychiatric clinics and hospitals obviously have a much higher rate of schizophrenia than those who merely go to A.A. Among the alcoholics who were clinically "unable to get the A.A. program," or those whose stories are rather bizarre, niacin has apparently been most beneficial.

As everybody knows, the prognosis of patients with the combination of schizophrenia and alcoholism has hithertofore been quite grave. The chances for recovery from schizophrenia while still actively drinking are almost nil; at least in the patients that we see in the Clinic. The chances of schizophrenics stopping drinking while they are still overtly psychotic has been very slim. By treating their schizophrenia with the Hoffer-Osmond approach, and simultaneously pushing them into A.A. our results are extremely good. We have also been seeing a large number of people who have gotten sober in A.A. but are still suffering many symptoms due to unrecognized schizophrenia, and in these cases treating their schizophrenia has been made considerably easier by the niacin approach.

The use of the Hoffer-Osmond approach in treating schizophrenia alone has been the most successful of any approach thus far. There has been a much higher rate of recovery with less suffering and cost, and with less frequent patient visits than were heretofore possible. I have never seen so many patients and their families more pleased and, as the word is spreading, the number of new patients is increasing at such a rate that we have to constantly add new doctors to the staff to handle the ever increasing case load.

I know what the rate of hospitalization and frequency of shock treatments were in the past in a large group of very sick schizophrenics. Since we started using this new approach, we have closed up our out-patient shock unit. Hardly any of these patients need to be hospitalized any more. The few who do are hospitalized voluntarily as an elective procedure. The whole attitude of the patients and their families is so overwhelmingly different that there is practically no comparison with the previous situation.

I would say that as far as straight alcoholics go, we have used B-3 in well over a hundred cases. I do not think the experience with the use of B-3 in alcoholism can be reported in percentages. In other words, it is not like Antibus where you could have a control and a treatment group. I use it clinically in the following ways:

1. Routinely for all alcoholics until they are sober for six months at least. We feel that it helps the patient clear up faster mentally and ~~emotionally~~.

2. We use it in all alcoholics who are already sober, but who come in because of continuing emotional difficulties. A great ~~many~~ of these clear up on B-3. Of course, a lot of these people are unrecognized borderline schizophrenics.

To date, we have not seen serious side effects from the use of B-3 in any alcoholic, sober or otherwise. Because of our satisfactory experience with it, we are planning to continue using it indefinitely.

Very truly yours,

David R. Hawkins, M. D.  
Director

# TREATMENT OF OUT-PATIENT SCHIZOPHRENICS & SCHIZOPHRENIC-ALCOHOLICS BASED ON THE MEDICAL MODEL

January 1968

David Ramon Hawkins, M.D.  
Director

The North Nassau Mental Health Center  
1691 Northern Boulevard  
Manhasset, New York

## BACKGROUND:

Biochemical research in schizophrenia has centered around four main areas:

1. Abnormal plasma proteins: As described in the work of Heath, Bergen, Ferguson, Fisher, Turner, Fessel, Frohman, Gottlieb, Haddad, Malis, Sceman, O'Brien, and Marrazzi.
2. Alterations of cerebrospinal fluid glycoproteins: As exemplified by the work of Bogoch, Chistoni, and Zappoli.
3. Abnormal metabolites in the urine: As described by Friedhoff and Van Winkel, and Hoffer and Osmond.
4. Faulty transmethylation of catecholamines: The best known workers in this field have been Altschule, Osmond, Axelrod, Himwich, Kety, Baldessarini, Smythies, and Hoffer.

The pertinent background to the clinical approach to be described began with the reports of Hoffer and Osmond beginning in 1952, describing a new approach to the treatment of schizophrenia. This was followed by the publication of over 200 papers and three books. Of particular significance were the findings of the ten year follow-up studies and the rates of rehospitalizations. (36% ten year recovery rate in the control group as compared to 75% in the treated group). Their recent book How to Live with Schizophrenia, analyzes the history and development of a new and comprehensive concept of schizophrenia. Out of this approach evolved the HOD Test, which has greatly simplified and facilitated the diagnosis and management of patients. With the establishment of the American Schizophrenia Foundation and Schizophrenics Anonymous, new dimensions were added to the understanding and treatment of this illness.

Of all the biochemical approaches to schizophrenia the one that has received the most attention and substantiation has been that of the faulty transmethylation hypothesis. In addition, this hypothesis most readily lent itself to clinical application and verification. The entire field of biochemical research on schizophrenia has recently been evaluated by Dr. Seymour Kety, Chief of the Clinical Science Laboratory, National Institute of Mental Health. The conclusion of the review was that of all the biochemical approaches to schizophrenia, a faulty transmethylation underlying schizophrenia is "the most plausible and convincing explanation of a wide range of observations in schizophrenia and warrants further evaluation."

## CLINICAL STUDY:

### A. Purposes and Limits:

We began using this new approach to treating schizophrenia in April, 1966. The purpose of this study was to derive clinical experience and data in trying to help the individual patient using, as a biochemically oriented treatment approach.

## B. Patient Population:

1. Diagnostic Characteristics: This series consists of 315 consecutive adult patients diagnosed as having schizophrenia, who applied for treatment at an out-patient clinic. The diagnosis was made by psychiatrists with considerable experience in treating schizophrenia, and the diagnosis was confirmed by HOD testing or complete diagnostic psychological test batteries. The records of the patients who had had previous therapy or hospitalizations were obtained and the diagnoses were further confirmed. Any patients in whom the diagnosis was in doubt (such as schizo-affectives with the possibility of manic-depressive psychosis) were not included in the series. Seventy of the 315 patients (22%) had alcoholism as well as schizophrenia. Majority of patients were chronic with diagnosis of either paranoid or undifferentiated type.

2. Previous Treatment: Eighty-nine percent of the patients had had previous treatment or hospitalization. Many had had multiple and lengthy hospitalizations of up to 12 years. Almost all had had previous phenothiazine and other drug treatment, often for prolonged periods. Several had had over 100 shock treatments and two patients even had a lobotomy. Previous psychotherapy or psychoanalysis for periods up to 20 years was common. Some of the patients families had spent up to \$150,000 on years of expensive treatment which had been to no avail.

## C. Method:

After a diagnostic evaluation by a psychiatrist the patient was given the HOD Test. After the diagnosis was confirmed the patient and/or his family were told that the patient was suffering from schizophrenia. The biochemical theory of the illness was explained to them, and they were advised to read the book, "How to Live with Schizophrenia" in order to increase their understanding of the illness and the treatment approach. Where applicable and possible the patient was also encouraged to attend either Schizophrenic Anonymous or Recovery group meetings. Every patient was then placed on the following combination of medications:

1. Niacin or niacinamide with minimum daily dose of 3 gm. and a maximum dose of 12 gm. The dose was pushed progressively to 12 gm. if there was no improvement on the lower dosages.
2. Ascorbic acid, 4 gm. per day.
3. A phenothiazine drug, which was given for its anti-schizophrenic effect and occasionally for its tranquilizing properties as well.
4. Pyridoxine, 0.2 gram per day for the 1st month, then 50 mg. daily thereafter.

The patient's illness was approached as being primarily a medical problem with psychological and social consequences. The patients were seen relatively infrequently, on an average of once a month. They were not counseled to stop smoking, but were encouraged to maintain a regular active daily physical exercise program. They were advised to keep caffeine to a minimum and the majority of patients were placed on a hypoglycemic diet. At the monthly visits, dosages of medications were almost constantly changed depending upon the patient's symptoms and degree of improvement. Antidepressant drugs were used where indicated and methylphenidate hydrochloride (Ritalin) was often prescribed for apathy. All patients were, therefore, on continuous multiple drug therapy.

## RESULTS:

### A. General Results:

The effect of telling the patient and/or his family the diagnosis was surprisingly salutary in almost every instance. The patients responded to revelation of the diagnosis by either indifference or considerable relief. A great many had either known or suspected the diagnosis all along, and were reassured by the doctor's frankness and honesty. Telling the patient that he had a specific illness, which needed treatment, resulted in a high degree of cooperation in taking the medication. Most patients, and their families, had been greatly confused in the past by evasive, vague, and often conflicting statements from previous doctors.

We found that this honest and open approach was beneficial and helpful. It relieved considerable family misapprehension and guilt and led to an optimistic outlook.

The use of the HOD Test was satisfactory to both patient and staff and gave a feeling of confidence that the degree of illness was being monitored by some objective means. We found a surprisingly high degree of cooperation and patient acceptance of the treatment program.

There were only mild side effects from high dosage B-3 treatment. One of these was flushing after taking niacin. We found that in general, the sicker the patient, the less was the incidence of flushing. When it did occur, it was usually controlled by the administration of Periactin, 4 mg. q.i.d., or by switching to niacinamide. High dosage niacinamide in some patients, resulted in a gastrointestinal flu-like syndrome with persistent vomiting. This occurred at higher doses, usually above 8 gm. and was avoided by adjusting the dosage or by switching to niacin or using a combination of both.

#### B. Response to Treatment:

The majority of patients improved significantly and progressively. Those in whom the illness began during adulthood showed the most dramatic response. If the onset of the illness was before age 17 the response to the treatment was slower and most treatment failures occurred in this group of grown-up childhood schizophrenics. Patients who were either too regressed or ill to cooperate with the medical regimen on an out-patient basis were hospitalized briefly for a short course of ECT. The average length of hospitalization was 6 weeks. The response of these hospitalized patients to intensive therapy is the subject of another study. (Paper was presented at Fordham University Conference on Schizophrenia, January 13, 1968.)

Improvement in the entire group was rated by: 1) the patient's subjective statements, 2) the family's observations, 3) the psychiatrists evaluations, and 4) by a decrease in the patient's HOD score. The overall improvement rate for the 315 patients was 71%. (This includes moderately improved, much improved, and recovered categories.) The greatest response to treatment was made by the patients with alcoholism plus schizophrenia. This was attributed to the fact that the majority of these patients also went to both A. A. and S. A.

#### DISCUSSION:

The improvement rate was surprisingly high in view of the fact that the great majority of the patients had already had previous and often extensive treatment elsewhere. Very few patients had to be hospitalized and these were the only ones that eventually required electroconvulsive therapy.

This new approach to schizophrenia brought many unexpected benefits to both patient and family, aside from the fact that the patient had a specifically diagnosable, named illness, which could be treated on rational grounds, removed the illness from the frightening and guilt-provoking "nameless" category. The almost universal relief upon disclosure of the diagnosis was followed, in some instances however, by family concern regarding genetic implications. This was handled by explanations based on Kallman's now repeatedly validated statistics, and the families were told frankly what the statistical risk might be in their specific instance. Several patients felt relieved from the cultural expectation of eventual parenthood. Two schizophrenic couples were quite markedly relieved from what they felt was an obligation to reproduce; one identical twin of a schizophrenic patient came in to be placed on the niacin regimen as a prophylactic measure against his developing the illness.

Of considerable importance for community psychiatry was the discovery that infrequent patient visits, spaced at increasing intervals, were quite sufficient for most patients. This treatment approach was found to be extremely economical and within the reach of every family.

The use of the HOD test clarified the diagnosis in many patients in a surprising way. The effect of its use on the staff was to alter and increase their understanding of the nature of the illness. The consistent repetition of the identical multiple perceptual distortions in patients of all descriptions, from all kinds of family backgrounds, diminished enthusiasm for simplistic psychodynamic formulations, especially those interpersonal, intrafamilial or socio-cultural postulations which have become almost cliches.

Some of these formulations assumed a different meaning as they began to appear as the result of or extraneous to the primary disease itself. It was noteworthy that the sexual confusion of many of the patients cleared up considerably, concomitant with the improvement in their schizophrenia, and appeared to be secondary to the disease process itself rather than etiologically primary to it.

Almost all of the treatment failures were either childhood schizophrenics or adult schizophrenics in whom the onset had been in childhood or adolescence. This suggests a possible correlation with Frohman and Gottlieb's work, which showed that the alpha-2 globulin plasma factor associated with an elevated L/P ratio in schizophrenia was absent in childhood schizophrenics.

#### SUMMARY:

Clinical experience with a new approach to schizophrenia based on the medical model has been described in a series of 315 patients. This involves: informing the patient of the diagnosis, educating the patient and family about the illness, use of the HOD Test, daily exercise, and a medical regimen consisting of phenothiazines, pyridoxine, niacin or niacinamide, and ascorbic acid. This proved to be inexpensive, financially possible for all, and patient acceptance and cooperation were high.

Niacin and niacinamide were found to be less effective in adult schizophrenics with childhood or adolescent onset. The overall improvement rate in the 315 patients was 71% and the best response was obtained in the 70 patients with schizophrenia plus alcoholism. Of the patients who are now sober only few failed to show improvement of the schizophrenic process.

The clinical manifestations of schizophrenia abated in our patients in response to a biochemically oriented treatment approach, which considers this illness to be the result of perceptual distortions based on a genetically transmitted disorder.

#### References

- Axelrod, J. Enzymatic formation of psychotomimetic metabolites from normally occurring compounds. Science, 1961, 134, 343-347.
- Bergen, J. R., Gray, F. W., Pennell, R. B., Freeman, H., & Hoagland, H. Taraxein-like extracts. Archives of General Psychiatry, 1965, 12, 80-83.
- Bergen, J. R. Possible relationship of a plasma factor to schizophrenia. Transactions of the New York Academy of Science, 1965, 28, 40-45.
- Berlet, H. H., Matsumoto, K., Pscheidt, G. R., Spaide, J., Bull, C., & Himwich, H. E. Biochemical correlates of behavior in schizophrenia patients. Archives of General Psychiatry, 1965, 13, 521-532.
- Bishop, M. P., Hollister, L. E., Gallant, D. M., & Heath, R. E. Ultracentrifugal serum proteins in schizophrenia. Archives of General Psychiatry, 1966, 15, 337-341.
- Bogoch, S. Nervous system glycoproteins in mental disorders in Biological Treatment of Mental Disorders, Farrer, Strauss, & Giroux, N. Y., 1966.
- Brune, G. G., & Himwich, H. E. Biogenic amines and behavior in schizophrenic patients. Recent Advances in Biological Psychiatry. Plenum Press, N. Y. 1963.
- Campbell, R. J., Bogoch, S., Scolaro, M. J., & Belval, P. C. Cerebrospinal fluid glycoproteins in schizophrenia. American Journal of Psychiatry, 1967, 123, 952-962.
- Chistoni, G., & Zappole, R. Neuramic acids in the cerebrospinal fluids of schizophrenic patients. American Journal of Psychiatry, 1960, 117, 246-249.
- Denson, R. Nicotinamide in the treatment of schizophrenia. Diseases of the Nervous System, 1962, 23, 167-172.

- Erlenmeyer-Kimling, L., Raner, J. D., & Kallman, F. J. Current reproductive trends in schizophrenia. Psychopathology of Schizophrenia, Ed. Hoch & Zubin, Grune & Stratton, N. Y., 1966.
- Fessel, W. J. Disturbed serum proteins in chronic psychosis. Archives of General Psychiatry, 1961, 4, 154-159.
- Friedhoff, A. J., & Van Winkle, E. Conversion of dopamine to 3, 4 - Dimethoxyphenylacetic acid in schizophrenic patients. Nature, 1963, 199, 1271-1272.
- Friedhoff, A. J. & Van Winkle, E. A neurotropic compound identified in urine of schizophrenic patients. Psychopathology of Schizophrenia, Ed. Hoch & Zubin, Grune & Stratton, N. Y., 1966.
- Frohman, C. E., Tournay, G., Beckett, P. G. S., Lees, H., Latham, L. K., & Gottlieb, J. S. Biochemical identification of schizophrenia. Archives of General Psychiatry, 1961, 4, 404-412.
- Frohman, C. E. Studies on the plasma factors in schizophrenia. Mind as a tissue conference, Lankenau Hospital, November 10-11, 1966.
- Gottlieb, J. S., Frohman, C. E., & Beckett, P. G. S. Biologic maladaptation in schizophrenia. Psychopathology of Schizophrenia, Ed. Hoch & Zubin, Grune & Stratton, N. Y. 1966.
- Hawkins, D. R., Practical application of the results of biochemical research in everyday clinical practice, Brunswick Hospital Center Conference on the Concepts and Treatment of Schizophrenia, Jan. 21-22, 1967.
- Heath, R. G. (Ed.) Serological Fractions in Schizophrenia. Harper & Row, N. Y., 1963.
- Heath, R. G., Nesselhof, W., & Timmons, E. D. L — Methionine — d, l — Sulfoximine effects in Schizophrenic patients. Archives of General Psychiatry, 1966, 14, 213-217.
- Heath, R. G., & Krupp, I. M. Demonstration of antibrain globulins by fluorescent antibody techniques. Archives of General Psychiatry, 1967, 16, 1-10.
- Heath, R. G., Krupp, I. M., Byers, L. W., & Liljekrist, J. I. Effects of serum protein fractions in brain functions. Archives of General Psychiatry, 1967, 16, 10-24.
- Heath, R. G., Krupp, I. M., Byers, L. W., & Liljekrist, J. I. Effects of antimonkey and antihuman brain antibody on brain function. Archives of General Psychiatry, 1967, 16, 24-34.
- Heyman, J., & Merlis, S. Transmethylation of nicotinamide in schizophrenics and normals. Recent Advances in Biological Psychiatry, 1963, 5, 211-220.
- Himwich, H. E., Smythies, J., & Kety, S. S., Ed. Amine Metabolism in Schizophrenia, Pergamon Press, Oxford, 1966.
- Haddad, R. K., & Rabe, A. An antigenic abnormality in the serum of chronically ill schizophrenic patients, Ed. Heath, R. G., Serological Fractions in Schizophrenia, Harper & Row, N. Y., 1963.
- Hoffer, A., & Osmond, H. The Chemical Basis of Clinical Psychiatry. C. C. Thomas, Springfield, Ill. 1960.
- Hoffer, A. Niacin Therapy in Psychiatry. C. C. Thomas, Springfield, Ill. 1962.
- Hoffer, A., & Osmond, H. Treatment of schizophrenia with nicotinic acid: a ten year follow-up. Acta Psychiatrica Scandinavia, 1964, 40, 171-189.
- Hoffer, A., & Osmond, H. How to Live with Schizophrenia. University Books, New Hyde Park, N.Y. 1966.
- Hoffer, A. The effect of nicotinic acid on the frequency and duration of re-hospitalization of schizophrenic patients: a controlled comparison study. International Journal of Neuropsychiatry, 1966, 2, 234-240.

- Hoffer, A. Quantification of malvania. International Journal of Neuropsychiatry, 1966, 2, 599-562.
- Hoffer, A., & Osmond, H. Nicotinamide adenine dinucleotide (NAD) as a treatment of schizophrenia. Journal of Psychopharmacology, 1967, 1, 79-95.
- Hoffer, A., & Osmond, H. A perceptual hypothesis of schizophrenia. Psychiatry Digest, 1967, 28, 47-53.
- Kallman, J. F. (Ed.) Expanding Goals of Genetics in Psychiatry. Grune & Stratton, New York, 1962.
- Kety, S. S. Biochemical theories of schizophrenia. International Journal of Psychiatry, 1965, 1, 409-432.
- Kety, S. S. Current biochemical research in schizophrenia. Psychopathology of Schizophrenia, Ed. Hoch & Zubin, Grune & Stratton, N. Y. 1966.
- Nicolson, G. A., Greiner, A. C., McFarlane, W. J. G., & Baker, R. A. Effect of penicillamine on schizophrenic patients. Lancet, Feb. 1966, 344-347.
- Osmond, H., & Smythies, J. Schizophrenia: a new approach. Journal of Mental Science, 1952, 98, 308-315.
- Osmond, H., & Hoffer, A. A card sorting test helpful in making psychiatric diagnosis. Journal of Neuropsychiatry, 1961, 2, 306-330.
- Osmond, H., & Hoffer, A. The relationship between and unknown factor ("US") in urine of subjects and HOD test results. Journal of Neuropsychiatry, 1961, 2, 363-368.
- Osmond, H., & Hoffer, A. A comprehensive theory of schizophrenia. International Journal of Neuropsychiatry, 1966, 2, 302-309.
- Park, L. C., Baldessarini, R. J., & Kety, S. S. Methionine effects on chronic schizophrenics. Archives of General Psychiatry, 1965, 12, 346-352.
- Robie, T. Treatment of schizophrenia. Brunswick Hospital Conference on Concepts and Treatment of Schizophrenia, 1967, Jan. 21-22.
- Rossi, A.O. Psychoneurologically impaired child. New York State Journal of Medicine, 1967, 67, 902-911.
- Sullivan, T. M., Frohman, C. E., Beckett, P. G. S., & Gottlieb, J. S. Clinical and biochemical studies of families of schizophrenic patients. American Journal of Psychiatry, 1967, 123, 947-952.
- Turner, W. J., & Chipps, H. I. A heterophil hemolysin in human blood: distribution in schizophrenics and nonschizophrenics. Archives of General Psychiatry, 1966, 373-378.
- Vanderkamp, H. A biochemical abnormality in schizophrenia involving ascorbic acid. International Journal of Neuropsychiatry, 1966, 2, 204-206.

# A MODEL OF SCHIZOPHRENIC'S ANONYMOUS

by

Father Joe

My speciality is not in psychiatry, psychoanalysis or clinical psychology. I am a professor of philosophy as well as an alcoholic-schizophrenic. Both of my massive illnesses have been arrested through a combination of "AA" - "SA" - and the multi-vitamin therapy devised by Drs. Hoffer and Osmond.

Because of intimate and intensively direct experience with schizophrenics who are getting well through this total program, I feel qualified to recommend this model of the SA Group which I started over a year ago at Fordham University. Our sufferers number over one hundred. Of these, ninety percent are firmly on their way to recovery. In this group 30 percent are alcoholic-schizophrenics who are also AA members, and the rest are nonalcoholic schizophrenics.

Since this disease is highly complex and involves the total personality in its physical, psychological and spiritual aspects of living, S.A.'s program of recovery is based on the principles of AA's recovery program - plus medical treatment and strict adherence to certain simple health rules.

For physical recovery, the S.A. member is strongly recommended to a doctor who fully understands the chemo-therapy program - Vitamin B-3 in massive doses and vitamin C in massive doses, plus the use of Vitamin B-1, and B-6, and the necessary phenothiazines where medically indicated and prescribed.

From a regular association with his doctor the patient achieves a solid conviction of the physical nature of his disease. Because of his close association with the doctor he readily comes to know the various aspects of the disease as they affect him. Through his doctor, he learns the importance of rest, exercise, high protein diet, avoidance of coffee, cokes, excessive carbohydrates and sugar, etc.

Even though the physician is not a direct part of the therapeutic process of S.A. the program cannot be wholly successful without his intelligent assistance.

Each new member attends the "Beginners" meetings for several weeks until he acquires a solid grasp of the physical needs of his recovery and the absolute necessity of vigilant and continuous adherence to the prescribed regimen.

Every member is given a knowledge of the H.O.D. card test which he can learn to administer himself. He thus checks on his progress and also on his relapses and so learn to regulate his medication accordingly. He can also in this way detect signs of the return of his symptoms through undue stress, carelessness in taking his vitamins - improper diet, etc. All of these "slips" show up very quickly on the H.O.D.

When the member begins to feel physically better, he joins the regular S.A. group which discusses, one step a week of the A.A. 12 Step program - substituting only the word Schizophrenia for the word Alcohol. Through involvement in these steps, he gains an acceptance of his disease and a knowledge of his part of the responsibility for repairing the damage it has brought to himself and others.

Through sharing his experience with other members he finds the hope that these corrective principles can and will restore him to health and sanity. He is able to communicate, often for the first time, with the other members of his group who have endured his experiences and afflictions.

He also learns, as does the alcoholic member of A.A., that there are immense affirmative values to be found in his illness and that by helping others he is helping not only himself, but his family, and his society. This is a spiritual bonus of inestimable value.

Through the "12 steps" and group participation, he also learns how to mature emotionally, to cope with his fears, hostility and isolation. Thus he builds on to his physical and psychological recovery, a creative and constructive structure of spiritual values.

Another factor which helps immensely is the personal knowledge of the SA member that he is a schizophrenic. In nearly every case a tremendous relief has been experienced when the actual diagnosis has been made. Most of our members have spent thousands of dollars and untold hours of unnecessary suffering in the limbo of various psychiatric approaches without ever knowing what actually ailed them. The release for the family is also very great, since most of them have been led by the same psychiatric advice to believe themselves responsible for the illness of their children.

In New York we have one closed "step" meeting a week exclusively for schizophrenics, and one open meeting for schizophrenics and nonschizophrenics. The first is strictly a discussion group and in the second the "S.A." members relate the "stories" of their recovery for the purpose of identification with the new member and education of the non-schizophrenic.

#### STORY OF S.A. MEMBER - JOHN F. D.

My first experience with drinking came at the age of 17 at which time I had my first drink, my first drunk and my first blackout.

When I graduated from high school, I was a weekend drinker and the first serious incident of my drinking occurred. I was in a barroom fight and because of the damage to my face I was unable to go to work for a week.

After six months I volunteered for the draft. The Korean War was going on at the time and the thought of being out on my own appealed to me. By the time we got overseas to Germany I was drinking heavily, frequently skirting serious trouble only by a hairline. After 20 months' active duty I was sent to an Army psychiatrist. He said he could help me if I chose to stay in service but I was ashamed and accepted a general discharge.

After my return home I was unable to go back to work right away. Instead I just idled around the house. I remember one time going downtown in the city during the day and being terrified by the crowds and the traffic. I know now that the schizophrenia was beginning to make itself felt. Finally I started working and enrolled in college at night. After two years, during which time the weekend pattern of drinking became a way of life, I tired of the routine, felt a desire to get into newspaper work and quit work and college within two weeks.

I went to Florida for a rest and I remember trying to stay away from a drink for the first three or four days. This worked for a while but eventually the loneliness caught me and I went into a bar for one drink. The next day, when I came out of the blackout, I found I had only my bus ticket left and seventy-five cents in change. I got back to New York and fortunately in two weeks got a job on a paper. I felt happier then, even though relations at home were strained to the point of long periods of silence becoming commonplace after my drinking bouts.

The changes in my personality were becoming more pronounced. The shyness was taking greater hold of me. I was frightened of the idea of sex and found it painful and embarrassing to be in the company of women when I was sober. However, within a year, I met a girl and found myself engaged. I say "found" because the engagement just seemed to happen. But before too much time went by I was drinking more and more heavily and frequently in front of the girl.

She gave me back the ring and I left New York to work on Jersey papers. The jobs got better through the years but the drinking got worse. I was thrown out of one apartment because of my drinking and a little later I had an automobile accident while drunk on the job.

By this time I was about 28 and the pattern of isolation had become pronounced. I was back living with my family. I worked nights and consequently the only time I had for recreation was weekends. Invariably I was drunk on weekends, and now found myself getting drunk more frequently during the week.

Each S.A. member is recommended to read -- "How to Live with Schizophrenia" by Drs. Hoffer and Osmond.