

Chronic Schizophrenic Patients Treated Ten Years Or More

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Introduction

We (Dr. H. Osmond and I), began to use nicotinic acid nicotinamide and ascorbic acid in large doses for treating acute schizophrenics in 1951. Based upon the results obtained from pilot studies, we began the first double blind therapeutic trials in the history of psychiatry in 1953. By then we knew that these vitamins were safe even in multigram doses, that they could be taken for long periods of time, and that the side effects were minimal and easily dealt with. Our first two double blind experiments showed that patients who were given vitamin B₃ in doses of at least three grams per day had a much better prognosis compared to those who received placebo. We concluded that the addition of this vitamin to the standard treatment of that day doubled the two year recovery rate of acute schizophrenics. Our second conclusion was that chronic patients did not respond to this vitamin, even with large doses. This was based upon a large number of patients we had treated at the Saskatchewan Hospital at Weyburn and at the Munro Wing, and upon a study completed by O'Reilly (1955). Dr. O'Reilly was a research psychiatrist associated with our research group. O'Reilly found that there was slight therapeutic activity, but we did not think it was adequate to alter our conclusion.

These two main conclusions are very important in view of the controversy which erupted following our reports of the therapeutic efficacy of vitamin B₃, because the investigators who tried to repeat our work did so by not repeating it, i.e. they used chronic patients without acknowledging that their patients were different from the type we had used on which we had based our original claims. When they did their studies with chronic patients they found as we had, that there was no response. The only investigator who tried to corroborate our conclusions was Wittenberg (1973, 1974), who published two studies. In the first

he found no significant improvement over placebo. In the second he found that the acute members of their group responded exactly the same as had our acute patients. Two-thirds of his group were chronic and they had not responded. Wittenberg thus completely confirmed our claims. However the critics have since then refused to refer to his second paper, while giving full publicity to his first paper. I had been placing almost all the patients under my care on the vitamin, whether acute or chronic, and eventually I began to accumulate evidence that it did have substantial activity but that it took a long time for it to become manifest, and it required the use of other nutrients and medication as well, Hoffer (1962), Hoffer and Osmond (1962, 1966), Osmond and Hoffer (1963).

Since 1965 I have treated a very large number of chronic patients using the entire Orthomolecular approach. The results have been much superior to those seen when only drugs are used. I concluded long ago that for these patients the best treatment must include everything which is available. The results are not as good as they are for acute patients, but a major proportion of the patients can be returned to a life which falls into a range normal for our diverse society.

Antipsychotic drugs were introduced with great fanfare, once the initial resistance from the National Institute of Mental Health, Washington, was overcome. The initial skepticism of psychiatrists was replaced by an over-enthusiastic evaluation that these drugs would rapidly restore patients to health. In our report in 1964, Hoffer and Osmond summarized the results of a ten year follow up of patients treated in two psychiatric wards in Saskatchewan. In Table 5 from that report, we showed that patients treated with nicotinic acid plus other treatments responded much better than had patients treated by drugs alone. The first study included the first few patients given this vitamin, and before tranquilizers came into general use. By the end of that ten year follow up period tranquilizers had

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become the main treatment. The latter is the University Hospital group. The first group

showed the following admissions data.

	On Niacin		Not On Niacin.	
	1952	After 1952	1952	After 1952
Admitted	16	4	27	17
Admissions	16	6	27	63
Years In Hospital	3.6	1.4	4.0	34

After Orthomolecular treatment the amount of time spent in hospital decreased to 40% of the time they had spent in hospital before treatment. In sharp contrast, the tranquilizer

treated group was in hospital 8-1/2 times longer. Another way of showing the effect of niacin in decreasing the need for further admissions follows.

	Initial Admissions	Re-admitted by Two Year Intervals				
		1953-54	55-56	57-58	59-60	61-62
On Niacin Not	16	2	0	1	0	0
On Niacin	27	19	20	15	11	7

These patients were treated before the tranquilizers were introduced. Another group was treated at University Hospital between 1956 and 1962 at the onset of the drug era. They were mostly treated by other psychia-

trists who had no interest in research, but who were persuaded by residents to try it out. There was very little input from me. This follow up data is shown below, as of Mar. 31, 1963.

Group	Number	Number Re-admitted	Number Re-admissions	Days In Hospital	N In Hospital	Number Suicide
On Niacin	169	70	137	12,452	6	0
Not On Niacin	349	166	380	44,823	43	5

We also examined the number of suicides. There were five from the untreated group (on tranquilizers and/or ECT only), and none from the vitamin group. The suicide rate was 1.47 per 100 patients over the seven year period. This was in agreement with an earlier study when we found four patients killed themselves from a group of 98, and none from a vitamin group of 73. Putting this data together we found that the suicide rate for the non vitamin group was 0.22 suicides per 100 per year or 220 per 100,000. It was a rate 22 times as great as the prevalent rates then for any normal population. Johnstone et al (1991) reported that out of 532 patients there were two suicides over the decade for women, 13 times the expected rate from a normal population, and five suicides for men, or about 19 times the normal rate. This is very close to the Saskatchewan suicide rate of tranquilizer treated patients compared to no suicides for the

vitamin treated patients. The English group were treated with tranquilizers. Placing schizophrenic patients on tranquilizers only thus exposes them to a suicide rate 22 times normal. We wrote, "We believe any drug which produced this high a mortality would soon be removed unless of course no other drugs were available to treat the conditions which untreated produced a much higher risk of death."

The results reported completely corroborate the 1952 results. The studies were conducted in two different hospitals in different cities, and separated about five years from each other. The therapists were different also. Finally, the second set of data was obtained during the tranquilizer era of psychiatry. Yet both sets of data were very similar. It is apparent tranquilizers have not decreased readmissions very much, if at all. Nicotinic acid, on the other hand, has made a great

difference to the natural history of schizophrenia. There can be few who can still doubt that every schizophrenic patient should be given nicotinic acid therapy. It is clear we greatly underestimated the ability of psychiatrists to be doubtful.

We concluded that "There can be no a priori reason why massive nicotinic acid should not alter the outcome of schizophrenia. Apart from deep prejudice or sheer inertia, it is worth trying because it meets one of the major requirements of any treatment, that of 'doing the sick no harm'. Two-thirds of those who develop schizophrenia are more or less crippled by it and return to hospital for periods ranging from a few weeks to several years. Our studies suggest that at least half of the crippled two-thirds will be well if given nicotinic acid, and some of the others will be helped. We think that these young people who are doomed to be in and out of mental hospitals for most of their lives, have a right to be given nicotinic acid even if medical people are skeptical. Nothing can be lost and as we have shown, belief or skepticism seems to have very little bearing upon the effects of this treatment".

Eleven years later Bockoven and Solomon (1975) also found that tranquilizers did not improve the long term prognosis of schizophrenic patients. They compared the outcome of two five year follow-up studies on patients treated at their hospital between 1947 and 1952, and between 1967 and 1972. The first group could not have gotten any tranquilizers while the second group was given the full benefit of this treatment. They concluded that the outcome was almost the same with one possible exception, the tranquilizer group fared worse and required much more social supports for them to keep going. Almost every thorough study published since them has shown the same results. The last one was reported by James D. Hegarty of McLean Hospital, Belmont, Mass. *Science News* described his findings as follows. "Many psychiatrists regard the introduction of antipsychotic medication in the 1950s as a boon for the long term adjustment of people with schizophrenia, a devastating disturbance of thought and emotion. But an analysis of research conducted over the past century indicates that psychiatric definitions of schizophrenia, rather than new treatment,

Primarily account for observed improvements or decline in the condition of schizophrenics over time.

"James D. Hegarty and his colleagues identified 359 studies from the United States, Europe, Russia and China in which scientists used specific criteria to diagnose schizophrenia in 15 or more individuals and then tracked the patients progress for at least one year. At least 15 percent of the schizophrenics studied from 1900 to 1930 showed significant improvement, Hegarty's team contends. That figure rises to 30 percent between 1930 and 1970 and then declines to about 15 percent again in research covering the past 20 years, they say. Studies in the first and last time periods generally used narrow definitions of schizophrenia, often requiring continuous signs of disturbance for at least six months. Projects in the middle period relied on broader definitions with no minimum time limits on symptoms. In studies for 1930 to 1970, more patients got better because they had milder problems to begin with. Hegarty maintains. The poorer outcome for schizophrenics studied after 1970 may also reflect the discharge of many patients from state mental hospitals and the lack of community mental health care for people with severe psychiatric disorders, he adds."

Johnstone, E.C. and colleagues (1991) reported their results of a follow-up study of 532 schizophrenic patients treated over a ten year period beginning in Jan 1, 1975. It is one of the most thorough studies of this kind. They had a mean of 1.68 admissions before entering this cohort with a range zero to 22 admissions. The total number of admissions was 5.37 with a range of one to 40 admissions. During the decade study they averaged 3.69 admissions. The group averaged 1.68 admissions before entering the study and this increased to 3.69 admissions on the average during the study. This again is comparable to the data obtained in Saskatchewan where it was found that tranquilized patients had to be admitted much more often. It is difficult to compare these patients outcome with mine since they used different criteria. Of major interest is their determination that only two patients were in the best occupational level and 25 in the next best (level 2), i.e. only 27 out of 532 were in the best two occupational levels (about 5 %). Fewer than

20% were employed but there was no breakdown to illustrate the type of employment they had. Over 50% of their sample still suffered from morbid symptoms. They also compared a five year cohort beginning in 1970 and found that they were almost identical with the latter group in outcome, even though the latter group had much more contact with social and medical agencies. From the latter group over 90% were in good contact with the agencies, whereas from the earlier group only 60% were in contact. The authors wrote, "More than 90% of patients received medical and/or social support, and 45% were supervised by a consultant psychiatrist. This was much closer supervision than had been provided for schizophrenic patients from the same service ten years previously... Few patients are now out of touch with the medical services and many more are receiving specialist supervision, and yet they are no better in these terms. The findings do raise the question of whether there is anything to be gained by the increased level of care given to the later sample." However although the patients were no better off, their relatives did have more confidence in the service provided compared to the relatives of the earlier group.

Over the past month I have seen a large number of my chronic schizophrenic patients who have been under treatment with me for at least ten years. I was impressed with their great improvement over what they had been like the first few years after they started on this treatment. I also thought how sad it is that psychiatrists have refused to look at this treatment and thereby have deprived their patients of their chance for an equivalent recovery and themselves of the opportunity to see schizophrenic patients who are getting well. They are not simply putting in time being heavily tranquilized. I was reminded of the account given to me by an Orthomolecular psychiatrist in North Carolina. He had attended a training conference put on by the Huxley Institute Biosocial Research in New Orleans. At this meeting I casually remarked to him that if he would follow the program for at least one year he would never turn his back on it. Six months later I received a letter from him where he started out by reminding me of what I had said. Then he added, "You were wrong. I have been following the program for six months and I will never give it up". He added that he

headed an outpatient clinic where 1200 chronic schizophrenics came for their injections of parenteral tranquilizers. He was so fed up with the whole procedure and with seeing none of the patients ever get any better he had decided to retire from psychiatry. However after he had started the Orthomolecular program within a month he began to see remarkable improvement in his patients. He now found going to work each day very exciting and he would ask himself which patient today will I see starting to get better. He has since become an excited and dedicated Orthomolecular psychiatrist.

In 1992 I participated in a conference called to examine the claims made by Orthomolecular psychiatrists. At the end of the meeting everyone present voted for a resolution requesting that the Ministry of Health proceed with further investigation of our claims. This meant sending out teams of investigators to examine our patients and our files. Yet even today there has been no indication that even one of the eminent psychiatrists at that meeting have the slightest interest in doing so.

I have not given up hope. It is possible that psychiatry, the least physiological of all the medical specialties, may one day catch up and realize that they will have to come into the newer medicine which is examining with great interest a large number of nutrients and their potential benefit to patients. These include nicotinic acid which lowers cholesterol levels and elevates high density lipoprotein cholesterol, and the antioxidant vitamins such as beta carotene, ascorbic acid and vitamin E which have been shown to prevent the development of arteriosclerosis, Pauling (1986), Pauling and Rath (1991), Rath and Pauling (1991, 1991a, 1992, 1992b), and to extend life, Cowley and Church (1991). These and other vitamins used in optimum doses, i.e. much larger than those needed to prevent the vitamin deficiency diseases such as scurvy and pellagra are for the first time in fifty years beginning to receive some attention as therapeutic compounds which have a vast potential for helping patients. I hope that by publishing these case histories and reporting exactly what their present state is, this might increase the level of interest among psychiatrists.

Research physicians publish rather brief papers for two main reasons: (1) there is a keen demand for space and journals like to

publish as many authors as they can in one issue, i.e. without cutting in too heavily into the pages devoted to advertising (up to 50% of the pages). (2) Case histories have disappeared from journal articles, as if living patients no longer existed or counted for very much. Instead, authors describe their methods, describe what criteria they used in selecting their groups of patients which were used in their prospective double blind controlled studies, and provide ample charts and statistics. I have read many papers where it is impossible to get any feeling for a single patient. In my opinion the object of a medical report is to report honestly what one has seen and in such a way that other physicians and readers will understand what was done, what the results were and what kind of patients were treated and what was the outcome. This paper represents the type of paper that was common forty years ago. By and large readers find these papers much more interesting. This is why letters to the editor are so much more interesting. They have not been vetted to death by skeptical reviewers as have been almost all the papers published.

Orthomolecular Treatment

A treatment that started out simply by using one or two vitamins and adding them to the current treatment program has become much more complex as newer findings have been incorporated into the program. Today it includes the following main elements.

A) The kind of food or diet which is followed

This has been one of the major stumbling blocks for orthodox psychiatrists who have never been able to understand that food plays an enormous role, not only in physical disease. There are two basic changes which must be made. The first is to remove as much as possible the many additives which are placed in modern prepared or processed foods. One simple rule will remove a major proportion of these. It is the no sugar rule. I advise my patients to avoid all foods to which anyone has added sugar, such as pastry, candy, pop, ice cream, cakes and so on. Any examination of processed and packaged foods shows the intimate association between sugar and other additives. The second rule is to avoid any foods to which the patient is allergic or which

cause any physical or mental discomfort. Elimination diets may be needed to determine these. In many cases a simple allergy history will locate them. Hoffer (1983,1989) Hoffer & Walker (1978)

B) The Vitamins

The main ones used in Orthomolecular psychiatry are vitamin B₃, vitamin B₆, ascorbic acid and to a much lesser degree vitamin B₁₂ and folic acid.

1) Vitamin B₃.

This term includes nicotinic acid, known medically as niacin and nicotinamide, known medically as niacinamide. I prefer nicotinamide for young people and for all patients who might not like the cosmetic effect of flushing after they have taken nicotinic acid. However nicotinic acid is the best one for elderly patients and for lowering cholesterol levels. The dose varies from 1 to many more grams per day. It is best given three times per day since it is water soluble and easily excreted. The usual starting dose for adults is 1 gram tid. Patients advised to start on nicotinic must be warned about the flush and how to deal with it. If any dose level causes nausea and later vomiting it must be lowered to below this nauseant level. If this level is too low for either one, a combination of both can be used. For a detailed discussion of the properties of vitamin B₃ see Hoffer (1962, 1963, 1965, 1966, 1967, 1967a, 1969, 1970,1971, 1971a, 1971b, 1972, 1972a, 1973, 1974, 1976, 1976a, 1977,1986), Hoffer & Osmond (1960, 1966).

2) Vitamin B₆ (Pyridoxine).

There is one main indication for using this for schizophrenics. This is the condition known as pyrolleuria. It is diagnosed by a urine test which measures for the presence of kryptopyrole, a compound we originally called malvaria, Hoffer (1965, 1966), Hoffer & Mahon (1961), Hoffer and Osmond (1961, 1963). If the urine test is not available it can be suspected by a few clear physical signs such as white areas in the finger nails, stretch marks on the body, premenstrual tension. The dose is usually under 1000 mg daily. I start with 250 mg and occasionally have to increase it to 500 or 750 mg. It is best given in association with one of the zinc salts such as zinc gluconate or citrate or sulfate.

3) Ascorbic acid.

I consider this a most important nutrient for

everyone, especially when they are sick. It is a good antistress vitamin. It does not decrease the stress but certainly increases the ability of the person to cope with it. It prevents the development of arteriosclerosis and also increases longevity. The books by Stone (1972), Pauling (1986) Cathcart (1985) and Cheraskin (1988) Cheraskin, Ringsdorf & Sisley (1983) must be considered essential reading for anyone interested in using vitamin C. Dr. Pauling effectively disposes of the myth that vitamin C causes kidney stones, see also Hoffer (1985). For a discussion of vitamin C and the prolongation of life for cancer patients see Hoffer & Pauling (1990).

C) The Minerals

All the minerals are essential but a few play a particularly important role in the treatment of the mentally ill. Zinc and manganese are important, especially in combination with vitamin B₆ since the double dependency exists so frequently, Pfeiffer (1975), Pfeiffer, Mailloux & Forsythe (1988), and Pfeiffer, Ward, El-Melegi & Cott (1970), particularly in areas where the drinking water is high in copper leached from copper plumbing, and deficient in manganese, which is removed from patients having tardive dyskinesia by tranquilizers.

1) Zinc.

The dose is between 50 and 100 mg per day which is safe for this water soluble mineral. Any of the salts can be used. I use either zinc gluconate or zinc citrate available in 50 mg tablets. The indications are described by Pfeiffer (1975), Pfeiffer, Mailloux and Forsythe (1988), Pfeiffer, Ward El Melegi and Cott, A. (1970).

2) Manganese.

Kunin (1976) discovered that tardive dyskinesia is caused by a deficiency of manganese which is bound by and excreted with the tranquilizers used over a long period of time. When the manganese is restored, in most cases combined with vitamin B₃, the condition is removed within a matter of days or weeks. I have seen how effective it can be. Hawkins (1986) surveyed psychiatrists who had treated, all together, over 58,000 patients. They could not recall a single case of tardive dyskinesia. The dose is anywhere between 15 to

50 mg daily and may be combined in a solution with zinc.

D) Drugs

The major psychiatric drugs are used following the usual indications. When combined with the dietary, nutrient program eventually much lower doses are adequate. This has the major advantage that they are less handicapped by the tranquilizers and there is much less chance of getting the usual tranquilizer side effects and toxic reactions. Orthomolecular doctors have never been opposed to the use of drugs as part of the overall program. They are opposed to the use of drugs only because they are not helpful in helping patients become well when used this way.

Psychiatrists are faced with what I have called the tranquilizer dilemma. I have not seen anyone else describe nor consider this problem. It is the same kind of blindness to fact, the same kind of denial which dogged psychiatry for years after these drugs first came into general use. For a long time they could not believe that these drugs could cause tardive dyskinesia. The psychiatric literature contained many articles denying that this could happen and attacking the psychiatrist who first brought this to public attention and insisted it was a real phenomenon. The dilemma follows from two true propositions: 1) That tranquilizers are helpful in reducing and eliminating symptoms and signs from schizophrenic patients. 2) That they are equally effective in making normal people sick. The first proposition will never be denied by any physician who has used them. The second proposition is based on what happens to normal subjects when they take these drugs by accident and upon the outcome of giving these drugs to normal people in Russian mental hospitals. They had been incarcerated there to get them out of the way or because the Russian psychiatrists in these prison hospitals believed that anyone who was a rebel against communism must therefor be considered mentally ill.

The object of giving drugs to patients is to start the process of recovery. At first this is exactly what they do. They rather quickly decrease the intensity of the symptoms and signs presented by the schizophrenic patients. But as the patient begins this process and their symptoms decrease in intensity and frequency, their physiology, which must also become more and more normal, begins to respond to the drugs as if they

were well, i.e. it makes them sick. They produce the tranquilizer psychosis. The tranquilizer psychosis is iatrogenic, induced by the doctor who has prescribed the drug. It causes both mental and physical symptoms.

The physical symptoms are lethargy, incoordination, tremor, fatigue, excessive sleepiness, impotence, dry mouth, difficulty in urination, increased sensitivity to sun and excessive weight gain. These symptoms provide some of the main reasons why patients refuse to take these drugs after most of their psychosis has come under control.

But the mental symptoms are even worse. They include difficulty in concentration, decrease in memory, disinterest, apathy, depression and irresponsibility.

Tranquilizers convert one psychosis to another. This was first pointed out by Prof Meyer-Gross, shortly after these drugs were introduced from France into England and the US. He said "Tranquilizers convert one psychosis into another. "The tranquilizer psychosis prevents the unfortunate patient from becoming a normal member of society because with these symptoms no one can function at jobs or occupations where these symptoms and signs are a handicap such as practising law, medicine, being a normal cook or architect or worker on the farms or in the factories. Would you allow your surgeon to operate on you if you knew she was taking 300 mg of chlorpromazine daily?"

Psychiatrists have tried to deal with this dilemma in only one way i.e. by decreasing the dose, by searching for newer drugs which are less apt to cause severe side effects such as clozapine, and in the extreme by placing the patient on a drug free program. This would be great if the original psychosis did not start to come back as it does in the vast majority of cases. The unfortunate patient is caught between these two psychoses and like a swing oscillates back and forth. Visualize two mountain ranges separated by a valley. One mountain range represents the original schizophrenic psychosis. The other represents the tranquilizer psychosis. Both are equally undesirable with a major difference. Psychiatrists seem to be more content to have their patients permanently on the tranquilizer mountain range while patients try desperately to escape into the valley which represents normality.

As soon as the drugs are started they begin

to work and after a few weeks or months both patients and their families are happy since the major symptoms are moderated and the patient appears to be getting well. Later on with the continued treatment as the patient becomes more normal the tranquilizer psychosis begins to appear. Eventually the entire schizophrenic psychosis has been replaced by the tranquilizer psychosis. The major difference is that society is much more tolerant of the latter psychosis than it is of the first. The major difference for the patient is that the psychosis has been changed from a "hot" to a "cool" psychosis.

The signs and symptoms of schizophrenia may be divided into "hot" and "cool" categories. Hot S & S are those that families and society find most intolerable and which are the reasons why these patients are admitted to hospital or, if the mental hospitals refuses to accept them into prison. By the latter I mean that many psychiatric wards and hospitals will refuse to accept patients if they do not want them for a variety of reasons and the easiest way to keep them out is to find them not mentally ill, as was the case with one of the patients I will describe later.

Hot S & S

These are the symptoms that most normal people will find intolerable. They include the following:

In perception: 1. visions, especially if the patient talks about them; 2. voices, especially if the patients act upon them, e.g. by setting fires; 3. other senses, if the patient responds with inappropriate behavior.

Thought disorder: If these changes lead to inappropriate behavior such as wandering nude downtown, accusing someone of poisoning them, etc.

Mood disorder: Manic behavior or suicidal depression.

Behavior: Any abnormal persistent activity, e.g. hopping on one foot all day, or rocking all day, or any inappropriate social activity.

Cool S&S

These are the same S&S but decreased or eliminated so that the overall behavior is now much more tolerable to families and to society. They are much more tolerable in an acute sense but in the long run will become just as

intolerable. It is one of the main factors in making it impossible for families to look after their chronic tranquilized children and forces them into group homes or other sheltered homes like those of the Salvation Army. Tranquilizers produce a variety of cool symptoms which comprise part of the tranquilizer psychosis.

Tranquilizers cool the hot symptoms and add a few more to the unfortunate patient. The tranquilizer psychosis is a combination of cool symptoms originally present in the patient combined with the new symptoms induced by the drugs. The dilemma is that while tranquilizers cool the hot symptoms they do not remove them and they add their own form of toxic reactions. This does not apply to the antidepressants which in most cases are much more benign and do not restrict patients activities and behavior to the same degree. It is possible to be normal while on antidepressant drugs. Of course this is also possible when the amount of drug needed to cool or eliminate symptoms is so low the tranquilizer psychosis symptoms are not generated. This is the case with many of the chronic patients I will describe further on. The optimum dose of drugs must be used at all stages of the treatment process. They must be decreased as soon as possible, the objective always being to eliminate them.

Tranquilizers work very quickly compared to the much slower action of the nutrients. Here is a comparison of the two major treatment modalities.

Tranquilizers	Nutrients
1. Act rapidly	Act slowly
2. Decrease intensity	Remove S & S
3. Cause psychosis	Non-toxic

The solution to the tranquilizer dilemma is to combine both treatments as is done by Orthomolecular psychiatrists. By combining these two treatments one takes advantage of the rapidity of the drugs with the much better final effect of the vitamins and minerals. At the beginning of treatment patients, if they have hot symptoms are placed on the appropriate drugs and at the same time the nutrient program is started. As soon as the patient begins to respond the dose of drugs is slowly and carefully decreased waiting weeks or even months before any major reduction is made. Eventually with most acute patients the drug is lowered to such a low dose it can no longer

produce the tranquilizer psychosis or is eliminated. As the patient recovers the nutrients gradually take over and once the patient is well they will in most cases keep them well. If they do relapse it is not nearly as severe and usually they respond much more quickly the second time around. The revolving door syndrome whereby patients are rotated in and out of hospital is eventually effectively removed. I have seen patients who had 30 admissions when they were started on this program who eventually did not need any more admissions. The HOD test is very helpful in following patients and will warn about an impending relapse long before it becomes apparent to the patient or to the physician, Hoffer, Kelm & Osmond (1975), Hoffer & Osmond (1963, 1966). A good example is that of a young medical student who had recovered after a combination of nicotinic acid, ascorbic acid and ECT. He had been well about five years when he was admitted to medical school. I had advised him that after five years the chance it would come back was slim. He therefore went off his vitamin program. About five years later while he was in third year medicine he noted a return of anxiety and depression. He spoke to me about it. I had him do the HOD test. It showed that the schizophrenia was coming back. The scores were very high. I advised him to start back on nicotinic acid 1 gram tid. He was so determined to get rid of the symptoms more quickly he doubled the dose. One week later the scores were all normal and a relapse was avoided. He finished medicine and has become a prominent and good member of the medical profession.

E) Other Factors

The other factors are the hospital, or nursing home i.e. the place where the patient is housed and sheltered, the ancillary services such as social work, occupational therapy and the psychology division. The nursing service is the most important in the hospital setting since they know the patient and their progress much better than any one else in the institution. All are important, but in my opinion the most important is the treatment program. In the same way the most ideal hospital dealing with diabetic will not get very far if it ignores the use of diet and insulin or other anti diabetic drugs.

F) Community Support Services

These are vital, especially for the chronic patients many of whom do not need to be rehabilitated, they must be habilitated. They have never been normal and when they recover they will need a total educational program to make them fit for social activity, for work and so on.

When is a Patient Well

Institutions prepare annual reports for the governments who provide the funds with which they operate. When I worked for the Dept of Public Health in Saskatchewan I read each report put out by the institutions with a great deal of interest. They provided information such as the number of staff in various categories, the number of patients admitted, discharged, still in hospital, and the number of tests given. But nowhere did I ever see a breakdown which would tell me how many were treated successfully. I would have liked to see this statistic. When I would talk to my colleagues in psychiatry and psychology about evaluating patients after treatment, they were all very loathe even to get involved. Their usual answer was that it was very difficult to determine when patients were better and that it would require large research grants to work out methods for making these measures. I understood why they were so reluctant. It simply indicated that changes in patients after treatment were so subtle that only carefully worked out subtle tests could make these determinations. On one occasion at one of the morning clinical conference at the University of Saskatchewan where I was one of the professors, I suggested to the meeting that we should hold a type of psychiatric post mortem whenever a patient who had been in hospital and discharged had to be returned. I suggested that these returnees should be conferenced and we would discuss why they had failed to stay in the community. There was a cold, dead silence and nothing more was said about this. I pointed out that surgeons were not reluctant to have pathologists do post mortem examinations on their post surgical patients and that they learned a good deal from this.

Since most people can tell when a person is psychotic or bizarre and this is known to members of the family, it must be relatively easy to conclude whether or not a person has something

the matter with him or not. The solution was therefor to use common sense criteria which any person could understand. It would be of no value to try to judge the degree of thought disorder that was present, or the quantity of depression or the intensity of the hallucinations. One would merely disregard most of these subjective findings and look at those variables which determine whether a person can function in the community. I therefor selected four measures of recovery or of wellness.

1) Freedom from symptoms and signs, one point.

2) Ability to get one reasonably well with family, one point.

3) Ability to get one reasonable well with the community, one point.

4) Able to work at a job or to be active in the same way as was the case before the illness struck. If the patient never had been engaged in this kind of activity they would be judged by the ability to perform any useful work, one point. The ability to pay income tax is an important measure of recovery. With these criteria I used the following scale;

Well	4 points
Much improved	3 points
Improved	2 points
Not improved	1 point

Clinical Descriptions of the Patients

1) Mr. K.G. Born 1945.

As a youngster he was shy and sensitive and occasionally had to be given tranquilizers. At age 18 he had asian flu with high fever, up to 105°F. He was admitted to hospital with hallucinations. Following that he required several admissions including one to Hollywood Hospital in Vancouver where he was started on a vitamin program with marked improvement. Later he relapsed and was admitted to Eric Martin Pavilion, Victoria, for a series of ECT. Then he went to Riverview, Vancouver, for six months, had two more ECT series receiving 30 treatments. After discharge he lived in a boarding house for a year. When I saw him he was confused, his speech was garbled, it was impossible to communicate with him and he was very inappropriate. He was depressed. He required chlorpromazine 400 mg to keep some kind of control.

He was admitted Feb 27 to Mar 13, 1978 and again Aug 4, 1978 because of obstructive jaundice caused by the tranquilizer. In 1978 he was no better and he was switched to haldol and eventually to long acting haldol by injection. He needed several more admissions as follows Oct 17 to 27 1984, Oct 1 to Dec. 1986 and Jan 28 to Feb 10, 1988. By then he was much better. When I saw him recently he came alone, was well dressed, told me about his activities in the group home and at a rehabilitation workshop. It was quite easy to engage him in conversation . I classified him as improved. He is on long acting haldol by injection, 200 mg every four weeks, plus haldol 90 mg oral daily, and kemadrin 5 mg tid. His vitamins include nicotinamide 500 mg tid, and folic acid 5 mg od.

He was seen the following number of times.

1977-78 - 21	1985-86 - 6
1979-80 - 15	1987-88 - 8
1981-82 - 12	1989-90 - 1
1983-84 - 11	1991-92 - 7

2) Mrs. L.T. Born 1955. When first seen in 1979 she complained she had been depressed since 1972. It started in High School. She left home at age 16 because she could not stand her stepfather. She married age 17 and divorced soon after. She felt no emotion during the separation but later was depressed. She did not respond to antidepressants which made her feel like a vegetable. When I saw her she was unreal, had out of the body experiences, and heard her own thoughts. She was paranoid when depressed and was at this time depressed. I started her on the Orthomolecular program and she began to respond. This is shown in the following HOD scores.

Date	Total	Perceptual	Paranoid	Dep.	Schiz.
October 6, 1979	58	17	1	13	4
October 31, 1979	47	12	0	7	4
December 20, 1979	7	1	1	0	0
Normal Scores	<30	<4	<4	<4	>2

She was very depressed again and was admitted Mar. 7 for one month and received 6 ECT. She was then well until Nov 13, 1986 when she was admitted again for five more ECT. She has remained well since. She is on the following program, nicotinamide 1 gram tid, ascorbic acid 12 grams daily, pyridoxine 250 mg daily, zinc citrate 50 mg daily, ludiomel 100 mg daily, prozac 40 mg daily and chlorpromazine 200 mg daily. She married and has two normal children. She has been seen the following number of times.

1979-80 - 13	1987-88 - 8
1981-82 - 10	1989-90 - 3
1983-84 - 7	1991-92 - 6
1985-86 - 14	

Only a person who has come through the schizophrenic experience can really relate what it was like. Here is her account of her illness and recovery. " When I was fifteen, in 1970, my mother , youngest brother and myself moved into some low income housing on our own. My two older brothers had fled by then. It was at this time when I acutely began to feel the difference between myself and the other kids at school. I felt

superior to them. I never had to study, and felt a slight contempt for those who did. I felt crazy. I remember spending classes engraving my eraser with my compass to produce a rubber stamp which said insane. It became my trademark. It was also about this time that I decided to go on the pill, and, although I had not yet menstruated, my doctor prescribed them for me. When I spoke to this same doctor about my confusion and depression, he assured me these were normal teenage feelings. I figured the fault lay within myself.

I maintained the same inadequate diet, which I believe was of paramount consequences: lots of cola drinks, pizzas, hot dogs, chips, cheezies, cakes and candies. I started drinking anything alcohol, I began smoking tobacco and pot, doing street drugs. I stopped short of taking heroin. Part of this shift was due to peer pressure— living in a large metropolis, peer pressure is difficult to avoid. Part was also due to being sixteen and seventeen years old during the hippie era. LSD was in . Most of it was an escape from the increasingly difficult reality of my life.

I tried school counselors. They told me I was having normal adolescent anxieties. I moved into a boarding home. I went to doctors, another G.P.,

then a psychiatrist. Both prescribed valium. This really did wonders for my depression.

I tried suicide twice. Then I went to live in the streets. I began to think that if I didn't do something, I would really go crazy. So I ended up marrying one of my street friends and leaving for B.C. After two years the marriage collapsed and I found myself alone and back where I had been born, in Victoria.

Shortly after my arrival in Victoria, I met someone very special. I know that when I met him, but never realized just how special he was, until it was all over and there he was still loving me. We were living together when things really began getting worse. I started having the hallmark auditory hallucinations, whispery, demeaning voices, mild visual hallucinations, delusions and sometimes very vivid illusions involved in schizophrenia. My thoughts did not make sense—I had too many thoughts, violent and hateful thoughts. I went from being extroverted to extremely withdrawn. I would sit in one place for hours at a time. I was afraid to look in the mirror. I became extremely agitated by sound, wouldn't answer the telephone, refused to see anyone. I hated eating. I became very superstitious. Anxiety attacks, where the earth fell away or I was pulled up out of my skin. I lost all feeling. Time slowed down. I would bang my head, would pull my hair to try and stop the noise, the pain in my soul. I would circle around and around upon waking, trying to figure out what I should do. Should I wash my face, brush my teeth first. What should I do?

Finally my common law husband came home one day and said he'd heard about some old fellow in town who might help me. He was a naturopath. For about a year I visited this marvelous little man(who is over ninety.) He taught me about diet, and why. He told me to eat whole, raw foods and to stay away from stimulants and why. He also piqued my interest in vitamins. When it was clear that he could help me no further, he told me about a specialist who would really know what to do. A referral from a GP was necessary, but I thought this would pose no problem. But the doctor I had been seeing for four years, refused to refer me. He told me I would do better coming to his group therapy sessions than in going to that "quack." That quack you may have guessed was Dr. Hoffer.

It took two more doctors before finally finding one, albeit a reluctant one, to get my referral.

My first visit to Dr. Hoffer hallmarked the turning point of my life. He gave me the Hoffer-Osmond (HOD) Diagnostic test, which confirmed I was schizophrenic. Then, he told me all about schizophrenia, explaining carefully what I could do to overcome it. He prescribed vitamins, minerals, medication and firmly spoke to me about proper nutrition.

I remember about three weeks into the program feeling very despondent. I just didn't feel any better. Dr. Hoffer suggested I do the HOD test again. Much to my amazement, there was a thirty point difference in scores. This, along with some encouragement and adjustments in medication and supplements, kept me going for another three months, when the bottom fell out of my world. I think because I had begun to get better, this particularly bad slip seemed to me, worse than ever before. I went into hospital. I had a series of ECT, or shock treatments. About two months after getting out of hospital, I began to notice a climbing of mood. Over the next few months, many other signs became apparent. Separately, they did not seem like much, but collectively, they really pointed at recovery. My menses became more regular, my muscles stopped aching, my perceptions straightened out. I noticed I could remember things better and retain more and more information. Even now and I spoke to Dr. Hoffer about this recently, my brain actually feels as though it is regenerating. I told him if this keeps up, I'll actually be a genius by 1990.

Having reached my goal of becoming well, in 1980, at the age of 25, I felt a need to test out my health. Perhaps I could go back to work? Having failed several times at holding a job for any length of time in the past I found myself fairly shaky about the idea. I decided to start with part time work. When that went alright, it gave me the confidence I needed to move on to bigger and better things. In May of 1981 I married the man I mentioned as being so special earlier on. They say you marry for better or worse. Certainly R. and I had already experienced the worst before we got married.

I would like to publicly acknowledge my husband's outstanding contribution to my recovery. He was always there to help, as best as

he knew how, emotionally and financially, and I don't think I could have made it without him.

In April of 1983, after three years of successful part-time work and two years of a successful marriage, I completed a normal pregnancy with the birth of a beautiful baby boy. I maintained my vitamin program throughout the pregnancy, having managed with doctors guidance to wean off all medications in the year prior to becoming pregnant. I have been medication free ever since a total of four years, keeping on with the diet, vitamins and lifestyle.

I found a job in a small office and shortly thereafter found myself becoming involved as a volunteer in the Friends of Schizophrenics society (FOS). I had discovered the group after attending a lecture series on schizophrenia that was put on by the local hospital and mental health centers. They were looking to establish a chapter in Victoria, so I jumped in with both feet. This was the chance I had been waiting for. Ever since I'd become well, I had been trying to figure out a way to help other schizophrenics. Surely what had worked for me would work for some of them as well. This is where I began to make my being schizophrenic into a positive force.

For the future I would like to see a pooling of all the accumulated knowledge, a cooperative effort in research and ultimately, because of these efforts an end to schizophrenia. I believe schizophrenics can act as a powerful force in ensuring this end. We must keep reminding those who are working for us, that they are working for us, that there is no time for political quibbling and controversy. So that all of us together can one day say, OUR MINDS USED TO THINK WITHOUT US."

This wish expressed by this patient arose from the controversy that was generated in the group when she told them that a major part of her recovery arose from the use of the vitamin program. Other patients were interested but the professional people were not. They had indoctrinated Friends of Schizophrenics into pursuing their only main objective which was to provide support to the friends of the patients. They were convinced that tranquilizers were all that one could offer and that taking vitamins was a waste of time.

3) Miss E.P. Born 1954.

I saw her in 1980 when she had been suffer-

ing since 1969. She had been admitted to a psychiatric hospital in Winnipeg for six months and there received 9 ECT. She had almost total amnesia for that admission but she was told that she was very paranoid. In 1975 she began to suffer from chronic fatigue. She started on a vitamin program which she followed until 1974 and during this time was much better. When she discontinued her vitamins she became depressed and tired. When I saw her she complained that people were watching her, worse when depressed. She had seen visions in the past. She was paranoid with a lot of blocking and she was tired and depressed. I admitted her Dec 1 to 7, 1981 and again Feb 18 to Mar 21, 1982 for a series of seven ECT. Since then she has been improving steadily with many swings into more depressions. In 1958 she moved into her own apartment. It had taken her about two years to feel ready to leave her parents home. She is now well on the following program fluanxol between 4-1/2 mg and 9 mg daily, Niacin 2-1/2 g daily, ascorbic acid 12 g daily, lithium carbonate 300mg tid and cogentin 1 mg daily. I consider her well. She was seen the following times.

1979-80 - 5	1987-88 - 14
1981-82 - 14	1989-90 - 9
1983-84 - 11	1991-92 - 7
1985-86 - 14	

4) Miss E.B. Born 1953.

In 1974 she became very paranoid and withdrawn. She believed people were laughing at her. Several months later she was well. When I saw her she heard voices, heard a tape recorder in her apartment, as she had earlier. She was again very paranoid believing people were gossiping about her, and had been plotting against her in the past. This included arranging for her to have a car accident. She also felt bugged. Depression and fatigue were present. She was admitted on three occasion June 18 - 22, 1981, Dec 11 to 19, 1981 and Sep 4 to Jan 8, 1982. Early in 1985 she still saw visions, black robed people walking through her apartment. By mid year they were gone. The voices continued to bother her for several years. But for the past three years she has been free of them. She is on chlorpromazine 500 mg daily, nicotinamide 4 g and ascorbic acid 3 g daily. I classed her as much improved since she is still not able to work.

Chronic Schizophrenic Patients Treated Ten Years or More

She was seen the following times.

1979-80-5	1987-88-14
1981-82-14	1989-90-9
1983-84-11	1991-92-7
1985-86-14	

	Total	Perceptual	Paranoid	Dep.	Schiz.
Retro spec.	94	23	7	9	8
July 5, 1985	36	10	2	2	4

A retrospective score is a score based upon the way the patient recalled her symptoms from the past. It is a composite of the patient's experiences during previous illness.

5) *Mrs S.D. Born 1953.*

During her mid teens she became epileptic with grand and petit mal seizures. She was well controlled with anticonvulsant medication but from that time on she remained depressed. She was admitted on seven occasions to psychiatric hospitals receiving ECT during some of these. Then she went to Hollywood Hospital, Vancouver, no longer in existence, and was given more ECT in combination with a vitamin program. Following that she was much better. When I saw her in 1979 she still suffered from visions and from voices which ordered her to hurt herself. This she would often do by holding a burning cigarette to her skin until she had punched through the skin. She was very paranoid, depressed and nervous.

She was admitted Jan 15 to Mar 4, 1980 for more ECT. She married in Oct 1984 to a very hard unsympathetic man who worked very hard at two jobs. She was admitted again July 7 to July 13, 1986. During the summer of 1989 she went off all her program largely because of her husband who did not approve of any of it and she suffered a serious relapse. Her family physician restarted the program and she improved and is now well. She is on modecate 50 mg intramuscularly every two weeks, anafranil 50 mg before bed, nicotinic acid 2 grams tid, ascorbic acid 4 grams per day, folic acid 5 mg daily and zinc gluconate 100 mg daily.

She has been seen the following times.

1979-80 - 10	1987-88 - 8
1981-82-6	1989-90-2
1983-84-13	1991-92-3
1985-86 - 15	

On the HOD test she scored the following points.

6) *Mr J.L. Born 1949.*

During the first visit, in 1976, it was impossible to get any information from him. He walked in with his mother and promptly turned his back to me and spent the next five minutes or more looking over the books on my wall bookcase. His mother had to persuade him to sit down facing me. She told me he had been uncoordinated as a child and later had a learning problem. He did learn to read and later became an avid reader. At age 18 he read about LSD and then told his mother he had been seeing visions as long as he could remember. In 1968 he was admitted and spent two months in hospital receiving ECT which was continued afterward as an out patient. He received about 100 treatments in all. In 1974 he was readmitted for three months to Hollywood Hospital and there given chlorpromazine 1600 mg daily. He had been started on a vitamin program two years before. On examination he reported visions, voices to which he responded and heard his own thoughts. In his thoughts he was paranoid, blocked a lot, had a poor memory and was not able to engage in any intelligent discussion. He also had violent mood swings. Since then he has continued to improve and is now improved. I saw him June 1992. His present state is so good it is difficult to realize how sick and deteriorated he was when I saw him first. We had a long discussion and reviewed his earlier presenting symptoms. He remembered his voices and visions which have been gone for many years. He was helpful in the group home where he lived and took on more responsible tasks. He was much more sociable both in the home and at a center for schizophrenic patients that he attends. He laughed, had a good sense of humor. Whereas at one time he would walk 8 to 10 miles daily he had greatly reduced this since he had so many more useful activities to do. He maintained close contact with his family and

his non identical twin brother. He could be classed as much improved but has lost so much out of his life from his chronic illness that he will probably never be able to work and be self supporting. It is possible to talk to him reasonably intelligently, he had no more outbursts, creates no problems at the group home, continues to read, He still walks a lot and is in good physical condition. He was seen the following number of times.

1979-80-10	1987-88-8
1981-82-6	1989-90-2
1983-84-13	1991-92-3
1985-86-15	

He is on the following program. Nicotinamide 2 g tid, ascorbic acid 1 g tid, Pyridoxine 250 mg tid, vitamin E 400 iu daily, zinc sulfate 220 mg bid, anafranil 75 mg before bed, trilafox 12 mg before bed and Valium 10 mg bid.

7) Miss G.H. Born 1963.

I saw this young girl for the first time as a result of a strange series of events. In 1981 I received a phone call from both parents who were very disturbed about their daughter because she was in prison. None of the psychiatric wards on the lower mainland of B.C. would admit her to their hospital and the Judge had ordered her to be held in prison. They wanted to know if I would admit her to the Eric Martin Hospital in Victoria. I replied that I could not do so since I had not seen her and that I would have to evaluate her myself before deciding. They then appeared before the Judge and told him that I would admit her believing that once I saw her I would really agree that this was essential. A few days later they all arrived and I was able to examine her. Her mother told me she had always been a nervous child from age three when she became hyperactive with a learning disorder. When 14 she went to a private school but had to drop out because she began to binge on junk food and became disoriented. She gained 20 pounds in a short time and later became bulimic and lost a lot of weight. When she came home she was referred to the Health Sciences Center University of British Columbia, for four months and later to The Maples for 1-1/2 years. The latter was an institution for delinquent and other behaviorally disturbed teen agers. At age 17 she was made a ward of the government, Dept of Human Resources.

Nov 1980 she was found to be unmanageable in the group home and she was again admitted to a hospital for two months. She left against advice to go home. In Jan 1981 she set fire to her mattress because she was angry at the world. She was admitted again, then followed up as an outpatient at Health Sciences Center. During this period she made three serious suicide overdose attempts. Her behavior remained hyperactive and bizarre. For awhile she was in and out of institutions. This included two months at the Forensic Center where they found her to be mentally normal and discharged her home. Again she set a fire, to her curtains. The RCMP were called and she was arrested and taken to Oakalla prison because the Judge could not find a single unit that would admit her. She had been blackballed and since she had been found "mentally normal" by the forensic center had no right to be admitted to a psychiatric unit. She was released to her parents care by the Judge on condition they see me. The Judge believed I had promised to admit her.

She told me about the visual hallucinations present from age 15. She saw people with knives and had told her mother about this. She heard voices who ordered her to do bad things like setting fires. She felt weird and heard her own thoughts. She was also very paranoid, believing people were plotting against her, watching her. She blocked a lot and could not concentrate. On top of all these symptoms she was very depressed. I had no choice but to admit her. Not to have done so would have been, in my opinion, not only very bad psychiatry but malpractice.

She was in hospital from Sept 11 to Oct 11, 1981 for nine ECT and again April 9 to July 18 1983 for another 16 ECT. Her final admission was Feb 25 to April 16, 1986 because the voices had come back and were ordering her to set fires which she would not do. Since then she has been improving steadily and has been well for the past four years. On her birthday, June 1, 1992 she called me to tell me she felt great and that she was hoping she would soon get a job for which she had applied. She has been taken care of by a general practitioner in Vancouver familiar with the Orthomolecular treatment program. She is on the following program, nozinan 100 mg daily, lithium carbonate 300 mg tid. thyroid 60 mg daily, nicotinic acid 1 g tid, ascorbic acid 1 g tid, kemadrin

5 mg bid and modocate 50 mg IM every seven days. I consider her well.

She was seen the following number of times.

1981-82-12	1987-88-3
1983-84-11	1989-90-4
1985-86-7	1991-92-1

8) Mrs. D.P. Born 1961.

She became very restless and disturbed after a period of hectic activity in preparing for going to University. Her mind ran out of control and she began to hear Satan. At night in her home when she heard the house creak she knew this was Satan. One night she heard

	Total	Perceptual	Paranoid	Dep.	Schiz.
Retrospec	73	13	9	4	12
July 15, 1981	8	0	1	3	1

I saw her again in the summer of 1981. She had been told by her coworkers about her powerful body odor. She was so embarrassed that she quit. They had considered her dirty which she was not. She had a typical schizophrenic body odor. I reassured here and advised to drink one glass of cranberry juice each morning. (One of my patients had discovered this and since then I have found it to be very effective. One nurse in charge of a group home eradicated the typical schizophrenic smell from her place by giving every one of her patients this drink.) Soon after she got another job and has remained well since. She is on nicotinamide 1 g tid, ascorbic acid 3 g tid, vitamin B₆ 250 mg daily, zinc gluconate 50 mg daily, anafranil 75 mg before bed, and nozinan between 50 and 100 mg daily.

She was seen the following number of times.

1979-80 - 3	1987-88 - 2
1981-82 - 13	1989-90 - 3
1983-84 - 15	1991-92 - 3
1985-86 - 3	

I class her as well.

9) Mrs. D.M. Born 1954.

She was admitted April 19 77 because of manic like behavior with great over excitement. She had been working aboard a ship where she became very delusional and developed hallucinations. She saw Christ and God in peoples' eyes and heard Christ' s voice in an attitude of prayer. She heard herself think and felt unreal. She showed thought disorder with confusion, paranoid ideas about

him knock three times and she knew this meant he was coming to get her so that she could not go with Christ. The next day she smashed a record she had been listening to the previous day . I saw her later that year when she described her auditory hallucinations, her paranoid ideas about being watched and her severe anxiety. I admitted her Sept 16 to 25, 1980. Later she was able to trace the onset of symptoms to 1977. Mar. 1981 she was well and working. She was admitted again Feb 15 to 27, 1984 because the voices came back but by the end of that year she was well. She tested as follows on the HOD test.

plots against her and with blocking. With these she was also deeply depressed. She was admitted again May 19, 1977 to Aug 2, 1977 for 6 ECT. By 1978 she was well and has remained free of schizophrenia since then . I have seen her often merely to monitor her treatment and response. She has been well for many years, since 1978. In the meantime she completed her masters degree and married and is getting along well. She is on nicotinamide 1 g tid and ascorbic acid 1 g tid , most of the time. She was seen the following number of times.

1977-78-11	1985-86-8
1979-80-10	1987-88-5
1981-82-17	1989-90-3
1983-84-16	1991-92-3

10) Mrs J.K. Born 1921.

Seen in 1977 she told me that she had her first breakdown in 1962. She suddenly became psychotic and was diagnosed schizophrenic. She began to feel peculiar and because of severe pain in her stomach was afraid to eat. Her behavior became bizarre, for example she began to burn her objects in her house, practised yoga in the street and urinated on the street. She heard voices. Recently she once more described how frightened she had been with these phenomena. She was admitted to hospital and was given one ECT. She then persuaded her family to take her hone and she was discharged against advice. Since then she had remained very tired to the point she did not feel human. When I examined her she had no perceptual symptoms, she

blocked a lot, had a poor memory and poor concentration, her head felt dull and she found it hard to follow conversation. She is the type of schizophrenic who would be counted as having responded to treatment simply because she no longer appeared in the mental health system even though she had never recovered but was able to function in the community. Her daughter is a chronic schizophrenic patient still in a mental hospital. I started her on the vitamin program. By the end of 1980 she was well. She is on nicotinic acid 2 g, ascorbic acid 2 g, Pyridoxine 250 mg and zinc gluconate 50 mg per day combined with serentil 20 mg, librium 10 mg daily and thyroid 60 mg daily.

She was seen the following number of times.

1977-78-8	1985-86-8
1979-80-18	1987-88-5
1981-82-6	1989-90-3
1983-84-6	1991-92-3

11) Miss L.K. Born 1954.

She became ill in 1978 when she was very nervous. I saw her the following year when she complained she could hear her own thoughts, was paranoid and blocked a lot and she was very anxious. I diagnosed as an anxiety state and started her on a vitamin program. In 1980 I re-diagnosed her schizophrenic after she told me about her visions of people in the pictures on walls and hearing voices. She was admitted Sept 2 - 29, 1980 for 7 ECT, In July 14-22, 1982 and for the last time July 15 to Aug 3, 1985. Early in 1983 her child was born. For awhile the department of Human Resources threatened to take away her baby but her parents took on responsibility and eventually took charge. She has been doing a fairly good job since then with the help of her parents. Her parents at one point did not accept that her unusual behavior resulted from an illness and had considered her as bad and lost to the family. Once they understood what was happening they changed their attitude toward her. She is now a single mother living in her one apartment and looking after her child. I class her as well. She is on the following program and follows it very carefully. Nicotinamide 3 g, ascorbic acid 1.5 g, folic acid 5 mg, B complex (50), Nozinan 210 mg before bed, Elavil 50 mg before bed and Kemadrin 5 mg daily. She has been seen the following number of times.

1979-80-6	1987-88-13
1981-82-14	1989-90-10
1983-84-9	1991-92-4
1985-86-19	

12) Miss J.P. Born 1945.

She had developed very slowly and was considered retarded. Speech began when she was 9 months, stopped until age 2 1/2 years. She went to a special school but did not learn much. Three years in a convent taught her more than all her years at the special schools. She learned to read and write. At age sixteen she was admitted to Ponoka, near Calgary, many times until age 20. She was then started on a vitamin program by Dr. Max Vogel and thereafter was a lot better. She and her mother moved to B.C. in 1977. When I saw her she felt unreal and was paranoid believing people were talking about her. She was depressed. She had visual illusions and spoke to the Beatles, to their picture when she saw them. She had physical evidence of a Pyridoxine-zinc deficiency. I started her on a revised vitamin program but could not see her very often as she was living in Vancouver. After many months of agitation and she was moved to a group home in Victoria and was started on loxapine 60 mg daily. Since then I have been seeing her more regularly. There has been a striking improvement and she is now much improved. She got on well at the group home, is taking rehabilitation courses and was looking forward to her mother moving to retire to Victoria so that they could both live together again. The change in her in a few months has been dramatic. She is on nicotinamide 3 g, ascorbic acid 3 g, Pyridoxine 500 mg and vitamin B complex daily.

13) Mr. A.B. Born 1962.

I first saw him in 1978 after he had been ill for one year. He had been admitted to hospital for one month. After discharge he was not able to go to school and took a correspondence course at home. He was started on vitamins four months before I saw him. During that first examination he told me about feeling watched, about the visions and voices he had in the past, and about his paranoid ideas about people out to get him and having plotted against him in the past. He was also depressed. I admitted him Oct 27 to Oct 28, 1980 but he was discharged at the request of

his mother after one day because his father was seriously ill at home. In 1987 his mother took him to Coral Ridge Hospital under Dr. Moke Williams for 20 days. Since then there has been substantial steady improvement year by year and he is now much improved. He is on nicotinamide 3 g, ascorbic acid 3 g, ativan 1 mg before bed and anafranil 50 mg before bed. He came in for his annual check June 10, 1992. He told me that he was well except that he had been slightly depressed for the past two weeks. His major problem now was he had gained 20 pounds over the past year. His mother agreed that he was well.

He was seen the following number of times.

1979-80 - 4	1987-88 - 1
1981-82-0	1989-90-1
1983-84 - 1	1991-92 - 2
1985-86 - 2	

14) Mrs. S. M. Born 1951.

She was always hyperactive according to her husband. In 1980 she suffered a miscarriage giving birth to a dead fetus. She delivered again in 1981 by caesarian section. For the next three weeks she was hyperactive. Because she was overweight she was placed upon medication to suppress her appetite. She became psychotic seven days before admission Aug 4 to 11 , 1982. She denied having any perceptual symptoms, was delusional for example convinced she was the sister of Terry Fox (a man who ran across Canada to bring attention to the cancer problem), and her behavior had been bizarre. She fled into the street nude. She had two more admissions Sept 20 to Oct 8 , 1982 and Oct 29 to Nov 15, 1982. In Jan 1983 she separated . Since then she has been stable and well having worked at her previous profession as a hairdresser most of the time. She has had several relationships since and had dealt with them in a normal manner. She is now on the following program lithium carbonate 300 mg, nicotinamide 3 g, ascorbic acid 1.5 g, pyridoxine 500mg, valium 30 mg, trilafon, 16 mg and elavil 560 mg , all daily.

She was seen the following number of times.

1981-82-4	1987-88-10
1983-84-14	1989-90-9
1985-86-12	1991-92-6

15) Mr. J. W. Born 1950.

He came to see me in 1979 when he told me he had been sick since 1963. At puberty he

went "crazy", developed a fear of being seen and hid as much as he could for the next five years. He also rubbed his eyes incessantly until, he believed, he had damaged them. Age 17 he was in hospital in North Bay , Ontario for three months. He was admitted again when he was 28 in Terrace, B.C. In between he married. This turned out well. When I saw him he believed people were watching him. He told me about the visions and voices he had experienced in 1978 and he still felt unreal occasionally. In his thinking he was paranoid, confused, his memory was poor, there was blocking, and ideas were running through his head. He was also very depressed. At that time he was on 400 mg of chlorpromazine per day. I admitted him in Dec 1979 for 17 days and gave him five ECT. Feb 1980 he was nearly well. But he needed another admission May 1980 for 18 days. June 1981 he completed his diploma at a community college. Since then he has been working full time. He is now on nicotinamide 500mg tid, ascorbic acid 4 g per day and valium 15 to 20 mg per day. I classify him as well.

16) Mr. R.B. Born 1950.

In 1968 he developed a serious prolonged tremor. The following year he was admitted to hospital for 10 days and later to the closest mental hospital for eight months. By 1972 he had been in the Hollywood hospital in Vancouver several times. He was then given a series of ECT and started on a vitamin program. This he had been following when I saw him in 1976. He then told me about his voices to which he would talk or shout back, about feeling unreal, about believing people were watching him. He was paranoid, blocked a lot and was depressed. I continued him on the vitamins. In 1977 he developed infectious hepatitis. By April 1992 he was improved. His program consisted of nicotinic acid 500 mg tid, ascorbic acid 1.5 g tid, nicotinamide 1 g tid, haldol 2 mg before bed, tofranil 25 mg in the morning and anafranil 25 mg before bed.

He was seen the following number of times.

1977-78-8	1985-86 - 3
1979-80-12	1987-88 - 2
1981-82-6	1989-90-1
1983-84-5	1991-92-2

17) Mr. B. W. Born 1965.

Seen in 1979 he complained that it all started in 1965 when he was working with

heavy equipment which was very noisy. He stated that it "blew his mind." I have never been able to figure out exactly what this meant to him but it has been a very disturbing symptom since then. He was able to work until 1973. Then he was in a car accident and was in hospital for 14 days. He was treated at Eric Martin Pavilion in 1978 for three months. When I saw him he complained of people watching him, distorted sounds so that he could not hear music properly, voices and feelings of unreality. He blocked, his concentration was down and he was depressed. Subsequently he was admitted to hospital Dec 5, 1979 for six days, Jan 28, 1980 for seven weeks when he received nine ECT and June 17, 1981 for six weeks when he received another 13 ECT. He was in again Aug 22 to Oct 23, 1991. He is on the following program nicotinic acid 1.5 g tid., ascorbic acid 1 g tid, haldol 75 mg daily, cogentin 6 mg daily and ativan 4 mg before bed. I class him as improved.

18) Mr. B.A. Born 1956.

In 1977 he dropped out of university to join a religious cult. Several years later he came back home still suffering from euphoria and expressing similar religious convictions. When I saw him he complained of his voices and visions and was convinced he was getting messages from God. He was paranoid and blocked and suffered from depression. In Feb 24, 1943 he was admitted for three weeks still complaining of the same symptoms. After that he continued to improve. He had been fully employed for the past eight years. He is on Tofranil 25 mg in the morning, Anafranil 50 mg at bed, Elavil 59 mg at bed, nicotinamide 1 g tid, ascorbic acid 1 g tid, Pyridoxine 250 mg daily, zinc sulfate 220 mg daily and nozinan 125 mg daily. I have him classed as well.

19) Mr. C.C. Born 1949.

This patient was very nervous in his teens and was first admitted in 1972 for two months. After discharge he moved to a farm and separated from his wife. In 1973 he was admitted again for two months. After this discharge he ran out of money, stopped all medication and relapsed requiring his third admission in 1974. Until 1977 he remained on moditen but this left his mind in a fog and he was changed to haldol. When I saw him he was having visual and auditory hallucinations and

believed people were looking at him all the time. He was paranoid, delusional and his memory and concentration were poor. He had continued to suffer episodes of depression. He told me he had taken LSD over a period of time about 60 times and also had drunk too much alcohol. By 1979 he began to improve but was still disorganized, depressed and found it hard to express himself. In April 1979 I doubled his nicotinic acid to six grams daily. In 1990 I saw him at a supermarket when he told me that he had just completed his B.A. at the university and was looking for summer employment.

He was interviewed by a reporter from the *Times Colonist*, Victoria. This is what he wrote. "C.C. was diagnosed as schizophrenic in 1979. By that time he had been sick for eight years and hospitalized four or five times. After sailing through high school he entered university and began working toward a degree in engineering. But he soon began to feel unaccountably depressed and anxious. I used to start crying in class because I was overcome by feelings of not being in control. I started sleeping long hours. I would fall a sleep in the hallways at the university. His trouble stayed nameless for as long time. The big problem was I didn't know what was wrong with me. I was never told the word schizophrenic ; it was never applied to me. His wife to whom he complained of hearing voices left him. His behavior drove her away. People abandoned me and I have forgiven them because I was impossible, said C.C, who is articulate and speaks in measured tones.

After he first began to get symptoms, rather than becoming quickly psychotic, he began getting progressively more ill. His hallucinations got worse. When he sat on a chair he felt it whirling him around the room. When he looked at his arms he saw pictures but no flesh. Gradually his life fell apart. Friends fled and the material props of existence slipped out from under him. I was left all alone in a house with no furniture. When they finally came to get me, they found me curled up behind the refrigerator in the fetal position. His arms were covered with burns. In an attempt to drive the illness out he had branded himself repeatedly with a fireplace poker. He was taken to hospital in a straitjacket.

In 1978 he moved to Victoria, wanting to make a fresh start in a place that had a reputation for being more spiritually and culturally evolved. He went to see Dr. Hoffer and was relieved when the psychiatrist told him he was sick and could be helped. Until then all he had heard was, 'You're weird. You're crazy. You're possessed.' Today he takes a maintenance dose of an antipsychotic drug and doesn't think of going off it. Having lost nearly two decades of his life, he is back at school studying for a bachelors degree in biochemistry."

He is on nicotinic acid 2 g tid, ascorbic acid 1 g tid, vitamin B₆ 250 mg daily, zinc sulfate 110 mg daily and Valium 5 mg daily. I consider him well.

20) Mrs. C.P. Born 1955.

I saw her first in 1978. Her first symptoms started six years earlier while she was attending first year university. Three years later she took the year off because she suffered from marked mood swings. She moved around a lot and received counselling. Finally she felt weird, began to hallucinate and believed that poison had been put into her food. She was admitted to hospital for three months receiving six ECT and medication. She was then advised that she would never be well. When I saw her she described how she had believed people were watching her, had voices and visions and felt unreal. She was less paranoid than she been before but still believed there was a plot against her. She blocked a lot and complained that ideas were racing in her mind and that her memory and concentration were poor. With that she was depressed. She was admitted to hospital July 1981 for three months. By Oct 1981 she was well. But she was admitted again Feb 27, 1982 until Mar 20, 1982 on two certificates. She was suffering severe hallucinations. I admitted her again July 1 1983 but on July 30 she discharged me refusing to follow the program any more. Many years later she re established contact with me by writing me long detailed letters about her progress. In April 1991 she told me she had married, was getting one well and was, with her husband, operating a store. Jan 1992 she reported she was on a gluten free diet which she found helpful. In April 1992 she once more wrote to tell me she had been in hospital for three months and had received another ECT series. Again the voices had been very severe. She was started on

clozapine. She had been on nutrients as well including nicotinamide 2 g per day, ascorbic acid 500 mg tid. zinc gluconate 50 mg od, Pyridoxine 100 mg daily and a vitamin B complex once daily. She said that she had gone of this entire program July 1991 for about two months but then went back onto it. I have classed her as well, even though she had a brief resurgence which responded rapidly to treatment.

She was seen two times in 1979-1980, 13 times in 1981-82, three times in 1983-84 and once in 1991-1992.

21) R.W. Born 1940.

R.W. became psychotic in his early teens. He was then treated in some of the top psychiatric institutions in the US including 1-1/2 years at the Menninger Clinic, one year at the Institute of Living in Connecticut, and in a large number of other hospitals ranging from Florida to New York State. Early in 1971 his father, a New York industrialist, called and asked whether I would be willing to take his son on for treatment. By then he had been sick with no improvement for more than half of his life. By then he had spent about 500,000 dollars on treatment. I was conducting an experiment to determine what was the most important element in any treatment program for psychiatric patients. I was then at the University Hospital, at Saskatoon, Professor of Psychiatry and Director of Psychiatric Research for the Province. The university hospital cost 80 dollars per day and provided ideal ratios of staff to patients. I believe there was at least one staff per patient, perhaps more. At the same time the closest mental hospitable treated the same type of patients and their daily cost was around 20 dollars per day. In those heady years when mental hospitals were improving so fast it was commonly believed by psychiatrists and by superintendents of hospitals that one could produce much better treatment results by increasing the ratio of staff to patients. They believed there was almost a direct correlation between this ratio and outcome. I became quite skeptical about this when I found out from research carried out in my division that the results obtained in treating schizophrenic patients were as good at the mental hospital at 20 dollars per day as they were at the university hospital at 80

dollars per day. We should have seen an outcome from the latter up to four times as good.

The major elements in any treatment program are the treating staff, the site of treatment, i.e. hospital, clinic, home, the streets etc, and the treatment process i.e. psychotherapy, medication, nutrition, nutrients, etc. The university hospital and the mental hospital used the same treatment programs, provided the same quality of food, and differed only in the staff to patient ratios. That study suggested that staff to patient ratio was a minor factor. To further test these conclusions I arranged with the proprietor of a new nursing home in Saskatoon to admit chronic patients under my care . They were coming from the rest of Canada and from the US. The nursing home would charge the families 20 dollars per day. It would provide nursing supervision, a single room and I would be responsible for the treatment program. I had agreed to have no more than two there at one time. They had none of the usual facilities available to the patients at the university hospital i.e. no psychologists, no social workers, no occupational therapists, no physiotherapists, and no residents, nor medical students. My first objective was to find out whether the nursing home could manage these psychotic patients. Everyone was a treatment failure from mental hospitals elsewhere. Within a month it was clear that we were not having any unusual difficulties. The patients did not run away any more than they would have from the hospitals. In fact the elderly patients in these homes enjoyed having young men and women schizophrenic patients around because they added some life to the setting. Most of the patients offered to help with looking after the seniles etc. I treated over 60 patients in this nursing home over a period of several years. An analysis of the follow up data showed that the results I was getting with these very chronic sick patients was the same as the results I obtained with similar patients at university hospital. This reinforced my conclusion that the treatment is the most important single variable. The results I was getting were much superior to the results obtained by using ECT alone or tranquilizers alone. Of course there must be adequate psychiatric and nursing supervision. But more money should be put into the treatment program than into the facilities and other aspects of treatment if one is to

conserve money and get the same good results.

I explained this to the patient's father and I agreed to take his son into the nursing home. By then he had been treated by Dr. Moke Williams in Florida who had to give him a series of ECT and later he was treated by Dr. David Hawkins in New York who also had to give him another series of ECT. He was brought to Saskatoon accompanied by a nurse and he was installed in the nursing home. Very slowly he began to improve. Eventually I found a family in Saskatoon who took him and when I moved to Victoria another fine family took him in as a member. He now lives in Victoria in his own area which includes his living room, bedroom, a private bathroom and the run of the house. He eats with the family. He is almost a member of the family. I see him every two weeks. If I were to introduce him to any psychiatrist and not tell them anything about his history I doubt they would diagnose him as schizophrenic this time, not unless they spent a lot of time with him. He is still paranoid at times but most of the time he is pleasant, cooperative, well dressed. He spends a lot of timed reading books and magazines. He goes with the family on outings. He is as happy as he will ever be. But he still must remain on a very extensive nutrient program with heavy doses of tranquilizers and with anafranil 75 mg daily. He has not needed any more ECT nor has he been admitted to any hospital since coming under my care.

For the first few months after he started on the Orthomolecular treatment in Saskatoon he was totally confused. One time I saw him sitting alongside a woman who was so deteriorated mentally she did not know where she was or what she was doing. Yet R.W. sat patiently beside her trying to teach her how to play checkers. He was completely unaware that she was in an entirely different world. I have classed him improved because he still suffers from symptoms and he is still unemployable.

In 1975 a colleague examined him and wrote the following report. " He has a flat, inexpressive face although at time he appears to be grimacing. His speech is confused and rambling. His affect is basically flat but at times inappropriate. He describes his moods as being very high or very low. He feels that he enjoys life and that life is worth living. He

denies suicidal ideas. His thought content showed some rather vague paranoid delusional ideas concerning religion. However there appears to be no systematized delusional system. He denies having had any hallucinations at any time. His thought processes show thought blocking, circumstantial thinking and tangential thinking. At times he also showed punning and clang associations. He tried to be abstract in his thinking but tended toward concreteness. There is no confusion, however both his recent and remote memory are very poor. His general knowledge was very good and his intelligence seems to be in the high normal range. Diagnosis: Chronic Hebe- phrenic Schizophrenia." He is improved.

22) G.J. Born 1951.

I saw him in 1971 after he had been sick for two years. He had become very nervous could not concentrate and had to drop out of school. He was admitted to Winnipeg General Hospital for three months where he was given 20 ECT. After that he continued to feel unreal, he felt numb and frozen. In 1970 he was admitted again for 10 days, followed by three months at the Manitoba Hospital at Brandon. He was discharged in April 1970 but was back in Dec. for four days. When I saw him he suffered from visual illusions, saw his face change in the mirror, heard voices, felt unreal and heard his own thoughts. He was paranoid believing everyone was watching him and he could not concentrate. His mood was flat, he felt half dead.

April 1972 I admitted him to Extencicare, the nursing home which was admitting my patients. He was given 10 ECT and placed upon the vitamin program. He had to be admitted again in Winnipeg April 14, 1975 for another six ECT. He came under my care again in Sept 1975 and I admitted him to City Hospital, Saskatoon for three weeks for treatment of his jaundice. By Oct. that year he was better but still very ill. He was admitted in Kelowna for a few weeks but since the hospital refused to give him his vitamins he stopped going there.

Mar 1977 his aunt who was being very helpful wrote, " It has been nearly two years since I have been in touch with you. G. is feeling so well and hasn't had a real setback since you last saw him in hospital in Saskatoon when you treated him for jaundice." In April 1987 I wrote to his doctor who

had referred him, "I saw this patient in Nov 1983 at which time he was getting along fairly well. He had done reasonably well until last winter when he began to feel sick, especially around Christmas. His modocate had to be increased and now he is taking 25 mg every seven days. He is somewhat better now but still not as good as he was. At times he tends to be very paranoid and he is still preoccupied with thoughts which he finds extremely unpleasant. He is also taking lithium 750 mg daily compared to the smaller quantity he was taking before, but I think this is a good idea. I have started him on anafranil 100 mg before bed to replace the other antidepressant he was on." April 1991 I wrote, "G. pointed out that the last summer had been difficult for him because he was much more paranoid than he had been and it required some readjustment of his medication. By fall, however, he was better. This past winter has been better than the previous winter, and since coming back to B.C. he has been feeling good. He discussed some of his delusional ideas which he is trying hard to control. Over the past four days his sense of taste has returned. It first deserted him in 1978 when he became ill. He also reported how lights appeared to be exaggerated last year but they are better now. I think he is continuing to make slow subtile progress." His program consisted of nicotinic acid 1.5 g tid, ascorbic acid 2 g tid, Pyridoxine 800 mg daily, manganese 50 mg daily, selenium 200 micrograms daily, lithium carbonate 750 mg daily zinc gluconate 50 mg daily and a few other vitamins. I have classed him much improved.

23) Miss T.D. Born 1961.

T.D. became a behavioral problem in 1975. But for the previous two years her work at school deteriorated. She became irresponsible, sexually active and began to have temper outbursts. She began to suffer blackouts, experienced visual hallucinations and illusions and her behavior became strange. She had taken LSD several times. When I saw her she told me about her visions and voices, her feelings of unreality e.g. her legs did not feel attached to her body. Her concentration was poor, she was very paranoid and very depressed. I started her on a treatment program but for several years she refused to take even vitamins because she was convinced they

were poisonous. Eventually she trusted me enough and began to follow the vitamin program carefully but she remained very suspicious of drugs. Her baby was born Oct 1980. I admitted her to hospital Nov. 1982 for four days. She had her last admission May 1986 for 10 days. She has been well for the past three years and has been active in the movement to help schizophrenic patients. She is currently taking nicotinic acid 1.5 g tid, ascorbic acid 1 g tid, Elavil 225 mg before bed and chlorpromazine 25 mg before bed.

She was seen the following number of times.

1977-78 - 1	1985-86 - 26
1979-80 - 0	1987-88 - 17
1981-82-3	1989-90-11
1983-84-8	1991-92-0

24) Mr. J.J. Born 1946

This patient is an example of a chronic patient who was treated very intensively for many months but who did not remain on the program after he went home. He is a good example of the type of response usually obtained with chronic patients taking only tranquilizers. I saw him for the first time in 1971 after he was admitted to the nursing home I have already described. He came with his mother who filled in the details of his history. He told me he had been depressed for four years. One year after onset he was treated at the Clarke Institute, Toronto, for 4 months receiving eight ECT. He was slightly better. But there was evidence of trouble long before. As a child he had been very nervous and as a youth he suffered from a learning disorder. After discharge from the hospital he tried several jobs but could not carry on with any of them. In 1970 his psychiatrist suddenly stopped the chlorpromazine he was taking. Two weeks later he was catatonic. It was necessary to place him back on the high doses he was on before. When I saw him he reported that people were watching him, told me about his visions of various people and his voices and scenery, how he heard his own thoughts and felt unreal. He was paranoid, spoke with a peculiar phraseology and his concentration was poor. Both parents were involved in a plot against him. He was in the nursing home, Extencare, Aug 31 to Nov 25 1971. Then he returned home but would not stay with the program. He continued to drink too much and would not follow a sugar free diet. He came back again July 28 to Sept 5, 1973. I was

then told that he had refused to take the vitamins because he had trouble swallowing pills and had to chew them or grind them up. I gave him nine ECT. He received another series of 13 May 14 to June 22, 1974. He then returned home somewhat better but within a few weeks at home he once more became non compliant and would not follow the program. His mother tried her best to keep him on the program but his father was very skeptical all along about the program and he made little effort to support his wife. Recently I was informed that he is still ill, not doing well at all and is in an institution.

Another young man was in the nursing home at the same time. He too received a series of ECT and the vitamin program. He went back home. Today 28 years later, I received a phone call from his mother who was visiting friends in Victoria. She called to bring me up to date. I had forgotten about him and have not been able to locate his file. She told me he was doing well. He had not needed to go back to any hospital. After his treatment in Saskatoon he had done remarkably well and was working five hours each day in one of the supermarkets. He was living in a group home and still followed his vitamin program with the support of his psychiatrist. He again illustrates the beneficial effects of the Orthomolecular program if it is maintained. J.J. illustrates what happens when it is not followed.

25) Mr. J. M. Born 1968.

J.M.'s mother wrote to me in June 1971. Following that discussion she brought him to Saskatoon and I saw him July 2, 1971. I found that he had been treated at Sunnybrook Hospital, Toronto, in 1968 for two weeks. He was clearly psychotic hearing voices with a series of paranoid delusions. He believed that the world was going to end, that he, somehow was influencing events outside including the weather and the world international situation. He was inappropriate, agitated. The conditions had settled in after a few weeks. He was started on medication and responded but remained apathetic, without drive, always worried and nervous. He showed the early manifestations of the tranquilizer psychosis. He had to be readmitted shortly after discharge to readjust his medication which had been causing severe side effects. When I examined him he spoke to me about his feeling people were

watching him, about being very self conscious, unreal and about his deep depression.

He responded very rapidly to the vitamin program but in Dec 1973 became jaundiced. The doctors immediately concluded he has developed a vitamin B₃ jaundice but it turned out to be obstructive and cleared and when he went back on the vitamins has not recurred. He still continued to suffer from anxiety and episodes of depression. In May 1974 he did a four day water fast to determine what foods he might be allergic too. On the fourth day he was well. Thereafter he avoided certain foods. In 1979 his mother told me he had completed first year nursing and was well. He had married and had a daughter. In 1986 I was informed that he was well. In 1991 he is still well and now has two children. He has been working at his profession since he graduated about ten years ago.

As a professional watcher of my colleagues I am interested in their reaction to patients who tell them they have gotten better on vitamins when they have failed to respond to tranquilizers. This family ran into the usual number of roadblocks in their attempt to get their son well. For example one of the psychiatrists, who had never tried out any of the program, told them when they came to see him, "You Hoffer people do have your believers" sarcastically. He suggested by this, that only their faith in me had made him well. This is curious since no double blind experiments has ever shown that faith alone will help schizophrenics get well, even though faith is an important ingredient in any program and should accompany the use of tranquilizers as well. Another psychiatrist told the family in 1974, "Vitamin therapy is pure crap." He interpreted the disease in their son as arising from family hostility. He told the family, "J. was like a fluffy little bird in the nest and that not just his mother, but the whole family was not willing to release him to anyone else." This is very poetic but neither scientific nor medically correct. Shortly after that he was transferred to a different hospital where the attitude to them was more sympathetic and helpful, and less tainted by Freudian jargon. I have classed him as well.

26) Miss G.L. Born 1954.

G.L. became sick in 1974 following taking LSD on three occasions. She became very depressed and suicidal and was admitted for

two days. In 1975 she practised transcendental meditation, went to first year University and drank heavily. Following her second suicide attempt she was admitted to Health Sciences Center, UBC for one month, diagnosed schizophrenia. After discharge she became more obsessional, felt she was falling apart and again was admitted for another month. In Nov 1975 she was in again for two months and again in 1976. Later she was admitted to Eric Martin Pavilion, Victoria, and readmitted July 5, 1977 when I saw her for the first time. By then she believed people were watching her. The feeling was so strong she was afraid to ride in buses or to go out. She saw walls falling in on her and once saw a suit hanging in her closet become a person of whom she was very fearful. She also heard voices. She was very paranoid, believing people were talking about her, running her down. Her concentration was poor. On top of all that she was very depressed, tense and suicidal. She then told me she had taken a ten day fast in 1975 and toward the end had felt marvellous. I started her on the Orthomolecular program. She recovered and remained well until 1980 when she began to drink wine heavily. Aug 1983 she was depressed but by mid 1986 she was well again and still on her vitamin program. Dec that year she made another suicide attempt by setting fire to her apartment. She was in a group home for awhile. In 1991 she married but later they separated. She had remained well, had one child, had developed her own business which required 10 employees. May 1992 she was again pregnant but then it was discovered she had thyroid cancer and this was resected. She was placed on a different vitamin program including a lot more ascorbic acid. Two weeks after surgery she told me she felt great and was back administering her business. I class her as well.

27) Mr.R.S. Born 1958

I first saw this patient during his third admission to hospital. He described his visions of God and of Love, and his voices which were of two types, the good and the bad. He also believed people were watching him. He was paranoid believing that someone was going to kill him and his mood was inappropriate. He was in hospital May 20 to June 16, 1979. I then started him on the Orthomolecular program. By July that year he was much better. Early in 1980 he began to

show signs of tardive dyskinesia which cleared in one month when he was started on manganese. In Mar 1980 he made a suicide attempt by over dosing, was seen in the Emergency but did not have to be admitted. He was admitted again Dec 25 to Jan 2, 1980. I saw him in 1984 when he reported he had not taken his vitamins but had remained on medication. He appeared well and was able to hold two jobs. But after going off all the medication for one month he relapsed and was readmitted June 19 to June 30, 1988. He then had been off his vitamins for seven years. I placed him back on this program again. He has been compliant since then and has been well many years, on haldol 3 mg daily plus niacin and ascorbic acid. He is still fully employed and gets on well with his employer.

He was seen the following number of times.

1979-80-17	1987-88-4
1981-82-3	1989-90-12
1983-84-1	1991-92-11
1985-86-0	

The patient told me he had stopped taking his niacin for one month because he wanted to re-experience his hallucinations again. Within a few days his voices came back and they were the same as they had been before. He became paranoid again. He felt his judgement was affected. For example he began to believe everything he read. He then resumed the niacin and within four days the hallucinations were gone again.

Discussion

This series of 27 schizophrenic patients is not a randomly selected sample from a larger population of schizophrenics. They were selected using the following criteria. 1) They have been under treatment at least ten years. 2) With a couple of exceptions they have been ill an average of seven years before they came for treatment. Their average age was 40. 3) They had not been responsive to any previous treatment.

The clinical data and present condition of these chronic schizophrenic patients is shown in Table 1.

From this group of 27, excluding the one chronic patient who did not follow the program, 11 are working, two are married and looking after their family and home, two are single mothers looking after one child, and three are managing

their own business. One received an M.A., another received a B.Sc. and a third received a diploma from a community college. Johnstone (1991) found only two out of 532 who were in the best occupational level. It is apparent from her description of the patients that in her group there were many more acute patients compared to my series of 26 of whom only two had been ill a year or less.

Table 2 shows the mean number of times the patients were seen over two year intervals beginning with the years 1977-78 and ending with the years 1991-92.

Omitting the first interval because there were only six patients in that group it is seen that from a maximum of 9.6 times seen there was a steady decrease in this statistic until in the last two years it was around four. Number of times seen is one of the criteria I use in determining how patients are getting along. The sicker they are the more frequently are they seen. This is a joint decision since in most cases once they have started to improve I ask them to decide whether they should be seen at intervals of one month, or two, or three or when they think they would like to come back again. If it is left open they are told they may call to set up another appointment whenever they feel there is a need to do so. The nurse in charge of group homes decides when they should be seen again, for the two patients living in these homes. In my opinion chronic patients who are still taking tranquilizers should be seen once or twice each year to monitor progress and to detect side effects. I have found over the past 40 years that patients are more compliant when they are in steady contact with their physician. This means that even when well the mean number of times seen per two year period will be between two and four.

Chronic patients respond very slowly to treatment and in this series there was little change in the first half of the follow up period. Only in the past five to seven years has there been a steady and enduring improvement. This can not be ascribed to the use of new and improved tranquilizers since with these drugs alone this is not the usual response. However it is possible that combined with the nutrients the newer tranquilizers may have become more effective. Another factor might have been the use of antidepressants, especially clomipramine. I have found

Table 1 Clinical Data on Chronic Schizophrenic Patients

Code	Birth	1st Seen	1st S&S	Sex	Voices	Visions	Delus.	Depres.	ECT	Cond.
K.G.	1945	1976	1963	M	Yes	No	Yes	Yes	Yes	Imp.
L.T.	1955	1979	1972	F	Yes	Yes	Yes	Yes	Yes	Well
E.P.	1954	1980	1969	F	Yes	No	Yes	Yes	Yes	Well
E.B.	1953	1980	1974	F	Yes	Yes	Yes	Yes	No	Well
S.D.	1953	1979	1971	F	Yes	Yes	Yes	Yes	Yes	Well
J.L.	1949	1976	1968	M	Yes	Yes	Yes	Yes	Yes	Imp.
G.H.	1963	1981	1977	F	Yes	Yes	Yes	Yes	Yes	Well
D.P.	1961	1980	1977	F	Yes	No	Yes	Yes	No	Well
D.M.	1954	1977	1977	F	Yes	Yes	Yes	Yes	Yes	Well
J.K.	1921	1977	1962	F	Yes	No	Yes	Yes	Yes	Well
L.K.	1954	1979	1978	F	Yes	Yes	Yes	Yes	Yes	Well
J.P.	1945	1980	1961	F	No	No	Yes	Yes	No	M.Imp.
A.B.	1962	1978	1977	M	Yes	Yes	Yes	Yes	No	M.Imp.
S.M.	1951	1982	1981	F	No	No	Yes	Yes	No	Well
J.W.	1950	1979	1963	M	Yes	Yes	Yes	Yes	Yes	Well
R.B.	1950	1976	1968	M	Yes	No	Yes	Yes	Yes	Imp.
B.W.	1965	1979	1965	M	Yes	No	Yes	Yes	Yes	Imp.
B.A.	1956	1981	1977	M	Yes	Yes	Yes	Yes	No	Well
C.C.	1949	1977	1972	M	Yes	Yes	Yes	Yes	No	Well
C.P.	1955	1978	1972	F	Yes	Yes	Yes	Yes	Yes	Well
R.W.	1940	1971	1954	M	Yes	Yes	Yes	Yes	Yes	Imp.
G.J.	1951	1971	1969	M	Yes	Yes	Yes	Yes	Yes	M.Imp.
T.D.	1961	1976	1973	F	Yes	Yes	Yes	Yes	No	Well
J.J.	1946	1971	1967	M	Yes	Yes	Yes	Yes	Yes	Unimp.
J.M.	1968	1971	1968	M	Yes	No	Yes	Yes	Yes	Well
K.G.	1945	1976	1963	M	Yes	No	Yes	Yes	Yes	Imp.
G.L.	1954	1977	1974	F	Yes	Yes	Yes	Yes	No	Well
R.S.	1958	1979	1977	M	Yes	Yes	Yes	Yes	No	Well

**Table 2
Mean Number of Visits Per Two Year Period**

77-78	79-80	81-82	83-84	85-86	87-88	89-90	91-92
11.3	7.1	8.9	8.9	9.6	6.8	5.5	3.4

this to be very useful in reducing and eliminating paranoid ideas. I consider recurrent paranoid ideas equivalent to obsessive compulsive ideas. I began to use it when I realized I had never seen cheerful paranoids. It occurred to me that if I could remove their depression it might be easier to let go of their paranoid ideas.

This slow response is a major disadvantage since few psychiatrists in private practice are willing to work that long with their patients and too often in mental hospitals patients who are discharged are not followed long enough by the same psychiatrist. In my opinion follow up must be done by physicians who can change the

medications and nutrients as needed.

There undoubtedly is some bias in this chronic population. They were willing to stay compliant for this period of time. The patients who would not follow the program would not appear in this kind of follow up. In my opinion compliance is much less of a problem when Orthomolecular treatment is used since the dose of tranquilizers is much less and there is less incentive for patients to go off the program.

Because of these factors one can not generalize beyond the parameters of this study. But it does show that chronic patients who are compliant over enough years do improve

substantially. To deprive them of this chance for recovery and for improvement is to me the height of irresponsibility. Double blind purists will dismiss this conclusion because it is not a prospective double blind controlled study. However such a study, even if I thought it scientifically valid, would be impossible to carry out. I can not visualize any substantial body of schizophrenic patients taking placebo for this length of time, nor would it be ethical to expose them to such a charade. Those who demand double blinds are simple using this a weapon against the use of this particular treatment. There is of course a way of rebutting this data. That is for any skeptical psychiatrist to select from their case load a similar group of patients who have been only on tranquilizers and to show that they have done equally well. I would be delighted to see such a series since in my clinical experience going back from the time tranquilizers first were introduced in 1955 I have not been able to find such patients and such responses with the use of these drugs only.

Recently Waring, Lefcoe, Carver, Barnes, Fry and Abraham (1988) reported the course and outcome of 34 early schizophrenic patients. They had had one episode or one admission and were classed as early (acute) patients. According to their description they were the best group to treat from a prognostic point of view because they had had only one episode, and they came from intact nuclear biologic families who were informed about their diagnosis. They were followed for five years. Sixty percent were still living at home and 82 percent were involved in follow up. Only one was not on medication of whom half were on antipsychotic drugs. Forty five percent who had been working at the onset were still working but work time was often reduced to part-time for extended periods of time.

Thus with the best possible group of patients given good and dedicated care by professionals and their warm and supporting parents only 40 percent were able to work part or full time. With these kind of patients Orthomolecular treatment over two years would have yielded at least 90 percent full recovery. With the use of the best possible ancillary treatment including only drugs this group has not done as well as the chronic group described in this report. Nor is it likely that the early group will do much better over the

next five years , since as I have shown , it is not possible to get well on tranquilizers alone. The authors ended their report as follows " only time will tell whether this cohort is able to work and love in their adult years".

Conclusion

From this group of 27 patients treated over ten years 18 are now well, three are much improved, five are improved and one is the same as he was at the beginning of this study. The one not improved, did not remain on the program after returning to his home in Ontario. None are worse. I have described the criteria I have used earlier in this report. This does not mean that they will be able to escape from seeing psychiatrists at regular intervals. If they are on medication it is mandatory that they be followed to ensure they come to no harm from the drugs. In addition problems arise now and then as they do with any group of patients who have a chronic disease, e.g. diabetes mellitus. The second major conclusion is that Orthomolecular treatment is safe even when used for over ten years. The third conclusion is that no major side effects are caused by the smallish doses of tranquilizers that many of these patients still require. The program does not produce tranquilizer psychosis. The tranquilizer dilemma is solved.

The final conclusion is that schizophrenic patients find the program palatable and will remain compliant. They are able to look forward to continuing improvement. I expect that if I could do another follow up in ten more years with the same group the follow up results would be even better.

The onus is now on orthodox psychiatry to demonstrate by research of their own that there is a major fault in these conclusions. It is not good enough to assume that this is all due to a series of unproven assumptions such as a placebo effect, faith, or even some monstrous conspiracy to show something works when in fact it does not. Or will the profession adopt the stance of a California psychiatrist who recently testified for 15 minutes before a judge that one of the patients was psychotic since she believed that vitamins had been helpful to her. World psychiatry experienced similar types of reasoning and conclusions from Russian psychiatrists who labelled dissidents psychotic simply because they were dissidents.

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Addendum - The Recovery of Another Chronic Schizophrenic Patient

Introduction

On July 13, 1978, I received a letter from a physician from eastern Canada who wrote, "The above named patient has been suffering from chronic paranoid schizophrenia for many years. Since his teens he was treated at the _____ Hospital on numerous occasions.

He has been seen by at least five psychiatrists with little success. On occasion he has been so psychotic that he required being placed in therapeutic quiet for long periods of time. He was extremely delusional, his delusions being of a religious nature, grandiose and paranoid. He often hallucinated for periods of weeks at a time. He received all forms of therapy,

including massive doses of psychotropic drugs plus ECT. On his last admission in 1976 I treated him. Eventually it was possible to discharge him on a dose of Mellaril 450 mg daily. I commenced seeing him September 1976 for weekly psychotherapy. He was able to function outside the hospital but was still quite psychotic. At his father's request I commenced megavitamin therapy. Patient had shown a marked improvement since. His father, a professional person, had been reading about megavitamin therapy and has asked me to request a consultation."

The physician sent along some of his hospital records. He was first admitted May 18,

1967, on certificate. He had been restless for six months and about five days before admission became severely psychotic. The first few days he refused to get up unless the bishop or the Pope was called so he could tell him a secret. He said, "I am God's child, Doc, and He is going to take me away. He is bigger and better than your God." He was given 14 electroconvulsive treatments (ECT), and was better on discharge August 1, 1967.

He was admitted for the third time February 6, 1973, and discharged June 20, 1973. The chart showed he had completed grade twelve but had always functioned at a borderline level. He was diagnosed schizophrenia, undifferentiated type. On admission he was started on ECT, and given large doses of chlorpromazine, later changed to thioridazine 800 mg daily. He was discharged improved.

I saw him February 19, 1979. He was then 28 years old and had been sick for 13 years. He was better but not well. He told me that he had not been normal all his life, suffering from recurrent episodes of depression. After his third discharge he remained on medication. In 1976 he was started on a megavitamin program by a psychiatrist who was unfamiliar with it, and who promptly took him off all his medication. It takes at least two months before the vitamin program can begin to work and during this time it is essential that tranquilizer support be maintained if it is already providing some support. He promptly relapsed. He was then started back on medication by his family physician who had referred him to me.

Mental State - Perception - He thought people were looking at him but the feeling was not as strong as it had been earlier. Lights bothered him and when he was upset he felt unreal.

Thought Processes - He was less paranoid than he had been, believing people were talking about him and at times plotting against him. His insight was good however and he knew that they were not. He was not able to control his thoughts, there was a lot of blocking and his memory and concentration were poor.

Mood - His episodes of depression had become less frequent and were not as severe. He remained unduly tired and slept too much.

On two psychological-clinical tests: the HOD test, Hoffer, Kelm and Osmond (1975), and the EWI test, El Meligi and Osmond (1970), he was within the schizophrenic range. I

concurred with the previous diagnosis and considered him much improved. I advised him to take niacinamide 1 g three times daily, Pyridoxine 250 mg daily, zinc sulfate 220 mg daily, and to continue with ascorbic acid 1 g three times daily, B-forte 1 tablet three times daily, halibut liver oil capsules 1 three times daily and his thioridazine 450 mg daily.

May 22, 1980, his doctor wrote to me again and said, Since the patient came back, "...I saw [him] more or less continuously in psychotherapy... until August 1979. Patient reported that he was feeling very good and in June 1979 we reduced his Mellerill from 150 mg t.i.d. to [400 mg daily]. ... On the 28th of August I [noted that he was] beginning to make very good progress [and] had improved to the extent that he has obtained a permanent job.

"In October of 1979 I reported [he] has a full time job as a janitor and he loves it. He is mixing much better, he can talk to people. His Mellerill has been cut down to [300 mg daily]... 13th March 1980...I noted [he was] beginning to relapse." He was very disturbed by his brother's illness. His brother had developed schizophrenia and was in hospital. The physician increased his drug to 1200 mg and gave him five ECT.

I saw him again in Victoria in May, 1980. He told me that he had started hearing voices again and had become very paranoid even about his parents, but had improved since his series of ECT. I then advised him to follow the following program:

Niacin 3 g
Niacinamide 3 g
Ascorbic acid 6 g
Pyridoxine 250 mg
Zinc sulfate 220 mg
B-forte, one daily, and to continue
Thioridazine 1000 mg.

I also discussed with the family how to ensure that the disease did not break out anymore in other members of the family; there were 10 siblings. The program for the family included a junk free diet, B-complex, three daily, for the well members. For those showing any symptoms it included niacinamide 3 g, ascorbic acid 3 g, Pyridoxine 150 mg and zinc sulfate 220 mg, all daily.

I saw him again in Montreal in September

1985 with his girl friend. He was normal. He visited me for the last time September 1990 in Victoria. He had been on his job for six years as a civil servant and liked it. He earned over \$20,000 per year and paid over \$4000 income tax annually. I also discussed with him a very slow decrease in drug dose, going down by 25 mg per month.

January 29, 1993, I received a letter from his mother who wrote, "My son, J has been to see you on three occasions. Thanks to your skill coupled with his doctor here, he has been able to lead a fairly normal life. He has held a job for nine years - with an excellent record. We feel this would not be so, without your help. For this he and the family will be forever grateful to you, and we are not hesitant to say where our help came from." Then she added that she too had been following the vitamin program and that this had contributed greatly to her good health.

In May 1989 he was seen by a psychiatrist in the east who had been in private practice in the west, and had moved east to take on a position with one of the hospitals and a university. He sent me a copy of his consultation report in which he concluded that the patient showed signs of residual schizophrenia, was slightly depressed, but was much improved over what he had been in the past. He suggested he continue with the program he was following and that he did not need any additional psychiatric treatment.

Discussion

J. has recovered from a very severe and serious form of chronic schizophrenia. I follow four criteria in evaluating a patient's state of recovery. These are:

- 1) Freedom from symptoms and signs;
- 2) Ability to get along reasonably well with his family;
- 3) Ability to get along reasonably well with the community;
- 4) Able to lead a normal life, either working or in other activities. The best estimate is the ability to pay taxes deducted from income earned while working.

J. meets all these criteria.

The following elements of any treatment program must be used to optimize the chances for recovery for any disease, especially for schizophrenia. These are: (1) hospitalization whenever required with a competent nursing staff and other ancillary personnel; (2) a com-

petent and caring physician willing to put in the time required; (3) a family who provide continuing support and encouragement; and (4) the right medical treatment program.

Fortunately for J. he had all four. The first three components were present even before he was started on the Orthomolecular program (originally called megavitamin therapy). He was in hospital on three different occasions and appears to have been treated well. He had a very good, caring physician with an open mind, willing to try anything which would not harm his patient and might help, and willing to stay by him long enough. With chronic patients I had found, Hoffer (1993), that five to seven years of supervision on the program are required before there is a major move toward recovery. Very few doctors, including psychiatrists, are prepared to put that much time into the treatment for chronic patients. He had a devoted family willing to do everything in their power to find a new solution to help their psychotic son. But on tranquilizers alone or combined with ECT, he did not recover even though he was certainly much improved. It was only after he went onto a total vitamin and mineral program did he begin his journey to our world of health.

His prognosis is very good for as long as he continues to follow his program. He may need to readjust his medication now and then, or the doses of vitamins, and he may have to consult his doctors when he runs into difficulties. But this applies to any chronic disease, physical or mental. This patient's treatment program represents the Orthomolecular treatment program, which is a combination of vitamins and minerals in optimum dosages with whatever drug is essential to achieve control. When recovery is well under way, the dose of the drugs are gradually decreased until the level is so low it no longer is a hindrance to living and employment, and helps control the disease process. Doses of nutrients and drugs must be adjusted according to the clinical state of the patient. This requires the help of a physician who is familiar with and not frightened of vitamin therapy.

Every schizophrenic patient will cost the province he or she is in over two million dollars over their lifetime, estimated at forty years. This includes hospitalization costs, welfare costs, medication, physicians fees,

legal costs, police costs and costs of incarceration, as well as loss of revenue, taxes, to the province and to the government of Canada, because they can not be gainfully employed. I have already explained, Hoffer (1993) why on tranquilizers alone it is impossible to get well. J's family, by seeking additional help, by paying for his visits to Victoria, by discussing the new treatment with his physician, and by paying for his vitamins (these are not covered even though tranquilizers are, no matter how costly) have, in fact, saved his sanity and his life. They have saved their province about 1.2 million dollars. For this they will receive no recognition nor gratitude from their government, or from the many psychiatrists who treated him unsuccessfully. The credit for J's recovery must be given to his family, to his physician and lastly to the Orthomolecular program his physician supervised so well and so carefully. Had his physician been more familiar with the program he would have done as well and there would have been no need for him to come to Victoria. The Orthomolecular program is described by Hoffer (1988, 1989, 1993), Hoffer and Osmond (1966, 1992).

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