The Rewards of Research— A New Clarification of Schizophrenia by the Term "Metabolic Dysperception"

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Introduction

During the past 40 years the treatment of schizophrenic patients has largely been unsatisfactory. Equally unhappy have been our attempts to explain to patients and their relatives the nature of this mysterious illness. It is even doubtful whether psychiatrists forced to deal with this disease had any better understanding, or that they could describe it clearly and adequately to their colleagues. The degree of comprehension demonstrated by John Conolly in 1830 had rarely been equalled.

For 30 years before that, the same difficulties were encountered with the diagnostic term dementia praecox which seemed even less apt and useful. Recently a woman physician suggested a new and to my mind more useful term which ought to replace the older obsolete terms. In 1967 Bella Koivalson[1] suggested the term metabolic dysperception which was based upon the growing number of observations that schizophrenics suffer an amazing variety and form of perceptual changes and upon the widespread belief among biological psychiatrists that these changes were due to some metabolic derangement.

In this paper I will present a small series of cases illustrating the increased utility of the term *metabolic dysperception* over the older term *dementia praecox* or *schizophrenia.* Most of the patients had received these earlier diagnoses.

Case 1 (FC 2678)

The married daughter of a 54-year-old man phoned to ask me to treat her father for his bizarre delusions of infidelity about his wife. He was making her mother's life utterly intolerable, by repeatedly accusing her of leaving their bed during the night to have illicit relations with a man in their house. The wife (informant's mother) denied all his accusations, yet steadfastly stood by him. He had been a good provider and she had no axe to grind for the male her husband had conjured up as her alleged paramour. Unfortunately, it was his own brother-in-law whom he delusionally believed came to the house in the early morning hours to consort with his wife.

There were no facts to confirm his beliefs and there were such obvious flaws in his allegations of his wife's adulterous excursions from their bed that his illusions fit the new concept of *metabolic dysperceptions* as the primary psychopathological element of his *schizophrenic* psychosis. The brother-in-law's wife was dying of

cancer and these psychotic accusations were quite understandably totally abhorrent to the patient's wife.

Moreover, there were two underlying causative elements for this patient's paranoid delusions and which strikingly confirmed via psychological formulations the new terminology for the psychotic phenomena of *schizophrenia* or *dementia praecox* as conceived by Dr. Kowalson. I refer to partial deafness which he had (paranoia of the deaf) and partial impotence (projection of infidelity upon the wife).

I am convinced that the remission of his paranoid symptoms was induced by niacin alone and made possible a tranquillized existence between the patient and his wife and I am also convinced that some credit must be given to androgenic hormone therapy for decreasing his partial impotence.

During the 11 months this patient was under treatment I found it much less difficult to interpret erroneous thinking to him directly by way of the dysperception hypothesis than would have been encountered through trying to elucidate his misinterpretations through either the ideology of *schizophrenia* or *dementia praecox.*

This case, along with others, convinces me that other psychiatric researchers will be equally rewarded if they utilize Dr. Kowalson's formulations for explaining the illness to the patient and to the patient's relatives, which will help them accept and understand and therefore promote remission.

In my belief Dr. Kowalson greatly underestimates her own scientific acumen when she states, "Let us look forward to the day when this disease can be renamed on a basis of specific etiology," for she does designate by the word metabolic that the dysperceptions emanate from metabolic activity which happens to be non-constructive, i.e., the formation of breakdown products from adrenalin's functioning in the body biochemistry.

Even though we do not know how these breakdown products induce the illusions, hallucinations or delusions or other dysperceptional phenomena, the fact that adrenochrome and adrenolutin do cause hallucinations has been elucidated in the Hoffer-Osmond researches and thus must be recognized as causative.

Case 2 (RG 2695)

This 26-year-old unmarried woman was another striking example of how *metabolic dysperception* is a valuable new diagnostic term to replace *schizophrenia,* since it creates much more rewarding therapy for the patient. It facilitates acceptance and insight into the patient's mental discomforts thus inducing clarification much earlier and inducing remissions in many not heretofore considered remediable.

Our best teaching method in psychiatry is called *insight therapy* and this new diagnostic terminology clarifies, from the first day's interview, the patient's understanding of this notably obtuse illness, through the biochemically oriented psychiatrist's explanations.

Back to the patient in question! This young woman, a college graduate, recently engaged in oceanobiologic research, was now breaking into the field of television sales. For several months she was plagued by bizarre perceptions which convinced her that she was in need of psychiatric treatment. She found her extremely odd mental perceptions favorably altered or, in most instances, dispelled by the administration of hyper-niacin dosage four times daily. The Hoffer-Osmond hypothesis that these bizarre dysperceptions result metabolically from the breakdown product of adrenalin fits into the schema with almost perfect dovetailing interdigitation.

In the early stages of this patient's psychosis when she would look at people their features would undergo alterations but

these would ultimately return to normal through niacin effects, although at that time she was taking only a small dosage. As her dosage was increased the later dysperceptions were more rapidly altered by the larger neutralizing vitamin dosage.

Here is a very recent dysperception spontaneously expressed in writing and which is a typical idea of reference with stomach tension the primary somatic involvement: *"Thanks, Doc . . . you sent it from the head to the shoulders, to the stomach and the feet. When it comes out the anus, I'll let you know . . ."*

During the same week she describes another dysperception: *"This time I cut off, in my dysperception, a young man admirer's head. He has been persuing me for years. He is getting his Ph.D. He was annoying me; we were eating in a restaurant and in my mind I just used the sharp knife I had to chop off his head."* (Note: the typical all-or-nothing reaction seen in hallucinations.)

During conversational interplay the patient asked: *"Will you please tell me why my mind is so mixed up?"*

And the psychiatrist's reply was: *"Because of adrenalin breakdown products circulating in your blood, having an effect upon other metabolites."*

The patient's reply was: *"Well, I don't know how to read myself anymore but I used to know how to read all of these things, such as the shyness I've felt for years. But you just don't know how to make decisions when your mind isn't clear."*

This would seem a quite natural response to the doctor over dysperceptional confusion, which, I must say, is slowly clarifying as niacin dosage is gradually increased.

She adds a touch of glamour (?) to the beginning of her most recent dysperception. This starts with the hallucination of the entire Rockettes troupe all in the high-kick in unison position. She makes a quick slash with her sword, amputating the high kicked leg of each one of the girls in a single act. The associations bring first the admission that her single stroke *emasculated* (?) them all. She admits she must mean defeminizing or castrating them since the sword stroke would have to cut directly through the vagina. It should be noted that there is a narcissistic element in this dysperception since this patient is a very attractive young woman with shapely legs and would thus eliminate the Rockettes from personal competition.

Case 3 (DH 1650)

When this 26-year-old single man returned to me after a 10-year interval he presented this typical picture of a narcissistic psychosis. He demanded that everyone's attention be focused upon him but did very little to warrant the attention he demanded. Although he worked for his father (he kept the books), he had no set hours and always could lie on the couch for long periods if he so desired. Apathy was his chief personality trait, though narcissistic selfishness was a close second. He demanded and expected his parents to give whatever he desired and since they could do so, he got practically everything he asked for. He thus continued to deteriorate into deeper narcissistic, self-centeredness.

He was first brought to me in March, 1955, as a 14-year-old-boy with multiple narcissistic physical complaints. He was given EST at first, receiving 12 treatments in three weeks, which produced a remission lasting 10 years.

When he returned 10 years later he had become more narcissistic than before in his dependence on his parents and they had obviously become more receptive, rather than less, to his excessive demands upon them.

Because of his obvious infantilism it was considered best to give him EST immediately in order to produce a quicker response with the plan to follow this by niacin

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therapy. Thus, after 12 EST (some were double treatments) he showed improvement and was then started on the usual small doses of niacin therapy. Spinal x-rays taken before the EST, showed a slight spina-bifida-oc-culta at L-5, SI which did not contraindi-cate the giving of EST under Pentothal anesthesia and Anectine muscle relaxation. He was started on VASTRAM November 1, 1965, which continued through April, 1966, when he was changed to the niacin 500 mg. q.i.d. with ascorbic 500 mg. q.i.d. During that six month period he became somewhat more sociable, attending a movie with his parents every few weeks and sometimes going to a restaurant for dinner with them.

Case 4 (KMB 2480)

This is a recently married 27-year-old Latvian girl whose recent symptoms fall into the *metabolic dysperception* category. When first seen nearly three years ago she was depressed and fairly good remission was induced by MAO inhibitors. However, during that chemically induced remission she went through a very severe automobile accident when a young man friend was driving her car. She was thrown directly through the windshield, leaving a silhouette hole in the glass that appeared much smaller than her body outline. Although she suffered many body and facial lacerations, remarkable plastic surgery left her with no defacing scars.

Whether the possible head injury contributed is mere conjecture but her clinical picture became altered.

There was an obvious recurrence of more severe mental symptoms following this accident and she was administered electro-convulsive therapy by another psychiatrist in a nearby state for her dysperceptional symptoms.

After only three weeks following six electro-convulsive treatments administered by another psychiatrist, she began to regress and had to be given 11 additional electro-convulsive treatments at my Day Hospital during the next four months. Then she was started on niacin 1/2 q.i.d., 250 mg. increased by 1/4 doses at weekly intervals. She attained a dosage of niacin 500 mg. q.i.d. relatively soon and has remained in good remission for 15 months on this less than average maintenance dosage.

She resumed her work as a hospital physiotherapist relatively soon after her amazing recovery from the automobile accident that would have ended the life of most persons.

It is perfectly obvious that her current diagnosis is *metabolic dysperception*, kept in good remission by niacin 500 mg. q.i.d.

An extra-ordinary factor in this case concerns her successful marriage to another Latvian about eight months following the serious accident. They have accepted the suggestion that she should wait three to five years before starting a family to determine whether the successful remission can be maintained by mega vitamin B_3, therapy. The husband has diabetes which is well controlled.

Case 5 (MC 2694)

An 18-year-old male whose *schizophrenic* psychosis took him to psychiatric sections of general hospitals on two occasions eventually gravitated to an analytically oriented psychiatrist who would not give him niacin as he did not believe in it.

The patient related this history: *"Five years ago I got very depressed when I was very heavy, weighing around 200 pounds. I put myself on a starvation diet, eating no breakfast or lunch and lost only 10 pounds. My doctors didn't want to give me diet pills.*

"Around mid-year I was down to 150 pounds and because I couldn't eat I had to be hospitalized. I got catatonic like in a delirium during that period when I was in the hospital, I felt a pressure—like I wanted to scream. I realized I was trying to kill myself by starvation."

The above history was given a year ago. Today, after one year on niacin, he has resumed his education and has entered college. It appears that niacin may make possible his completing college because he has an extraordinary vocabulary and is extremely well read and informed in spheres way beyond his 19 years.

Case 6 (FV 2442)

When I was first asked to treat this 28-year-old mother of two boys, aged four and a half and two years, I thought the case would be impossible to unravel because she had received electro-shock therapy for *schizophrenia* and had been divorced twice (from the fathers of her two children). Unfortunately she had married an uncouth man a short time before she had to be sent to the psychiatric hospital for EST.

It was during her schizophrenic breakdown that she divorced this third erratic husband because he refused to accept as his foster son, the wife's son by her first husband. However, there was another unpardonable reason in his repetitive demands for fellatio followed by his belittling accusation that she was only a prostitute because she consented. Also, he repeatedly assaulted her by punching her on the back of the neck, causing persistent headaches.

She had been started on Mellaril 25 mg. t.i.d. following the course of EST given her at the private sanitarium before being brought to me for outpatient follow-up treatment.

She was kept reasonably well tranquil-ized on Mellaril for eight months, ultimately receiving 25 mg. t.i.d. and 100 mg. at night. However, at this point (eight months on Mellaril alone) niacin was added and she began to flourish with this adjunctive vitamin therapy, even gaining more weight. She did experience some severe flushes, however, and the dose of niacin (Vastran Forte) had to be reduced by half. She was one of the first cases on whom Periactin was tried and the hot flushes receded immediately on one tablet per day only.

She has continued under my care for four years because of the traumatic effects of three divorces and the deprivation of her first born son through her third husband's demand for his banishment (the child was returned to his father).

The remarkable part of this report is that she has remained in good remission with niacin as the basic treatment and thyroid in adequate dosage to keep down her tendency to over-weight. Furthermore she has done so well in a part time job during the past year that her employer is constantly begging her to accept full time responsibilities.

Since niacin lowers her B.P. (as it does in most cases) she requires caffeine tablets twice daily to hold B.P. above 100 and thus she can take only niacin 375 mg. q.i.d. Yet this low dosage sustains this remarkable remission.

This case clearly establishes the value of the term *metabolic dysperception* as an etiological replacement for the word *schizophrenia,* as it demonstrates the basic criteria for the new diagnosis, notably the remissibility of dysperceptive symptomatology through persistent use of niacin as the only known antidote for adrenalin breakdown products in the blood stream.

The facts known to the author about the

patient convince him that if she had not received niacin therapy early following the development of her niacin deficiency *metabolic dysperception,* she could have been a rapidly deteriorating patient with prolonged years or a lifetime of state hospital back ward status.

It will doubtless be through illustrative cases such as this one that an understanding of the interchangeability of our concepts of *metabolic dysperception* and *schizophrenia* will come about.

Thus, Dr. Kowalson helps us as she explains in her article published in the *Journal of Schizophrenia:*[1] "I will use the term *metabolic dysperception"* in referring to people who suffer from varying degrees of abnormal perception, with corresponding changes in thought, mood and behavior, who respond favorably to mega vitamin B_3 and allied therapy, if treated before irreversible pathology has developed."

Case 7 (JS 2720)

This is an obese 24-year-old man whose 70 excess pounds doubtless came from high phenothiazine dosage while on the easiest to administer regime so often given in our state hospitals, where he has been a patient several times in recent years.

He is under supervision of state rehabilitation and they have found him a job in which he can really accomplish something despite his dislikes of the job. He is a social worker who hunts down for chest x-rays etc. recalcitrant tubercular cases who may or may not be in remission. This young man wears a very self assured facial veneer which suggests an over abundance of egotism (narcissism).

He states: *"They said I was a paranoid schizophrenic at the state hospital. I'm very nervous and easily upset and apathetic. I'm always about half dead. Is there any tranquilizer that doesn't cause tiredness?'* His speech has an infantile tone. He comments: *"I don't think that I'm paranoid now. I overcame that in the group sessions of schizophrenics anonymous where I felt right at home with other known paranoids. But I did have perceptual distortions. Nothing was flat on the floor—everything was moving."*

He continues: *"I agree with Dr. Osmond that this fear comes from my misperception of other people's facial expressions and the tone of their voices. I felt that everyone was a monster or a scoundrel toward me."*

I believe it is apparent that he can discuss hallucinatory and delusional phenomena within himself without being inhibited. This may be due, in part, to the increased insight niacin gives him but it seems quite possible that there is a synergistic combined effect of ascorbic acid potentiating niacin which may enlarge the scope of his understanding.

It is his own statement that ascorbic acid in large doses (2 gm.) effect him like a strong cocktail (euphorically) and the combination of the two may have the constructive effect hypothesized above, when dysperceptions occur.

Since these discussions of ours occurred when he had been taking much larger doses of both ascorbic acid and niacin, the fact that I felt he was showing much more insight into his own illness should not be surprising.

I do believe that he is gaining more insight into his illness with the aid of these vitamins and that his insights are lending strong support to Dr. Kowalson's concepts of *metabolic dysperception.*

50 Percenters

I have had under treatment, off and on, for several years a group of patients taking niacin that I call the "50-50's" or "50 percenters." Although it would be almost impossible to accomplish, if you *could* make an accurate comparison in all spheres, these *schizophrenics* or *metabolic dysperceptives* would show about 50 percent improvement

which all will agree is better than none. I am sure that some researchers would consider these cases as 60 or 65 percent improved but I prefer to err on the conservative side since we are dealing with abstract factors not easily measurable.

Case Al (GM 2619)

The first case I will mention is a 20-year-old high school graduate who barely made graduation because he was in a state hospital several times during junior and senior years with schizophrenic *(metabolic dys-perception)* recurrences which necessitated electro-shock therapy.

Each time his Psychopathology recurred he had to be recommitted since he did not have sufficient judgment to realize he required psychiatric hospitalization.

Following graduation, while under my care, he lost jobs because of mistakes made as a result of his dysperceptions.

In January, 1966, he had been admitted to the psychiatric section of St. Vincent's Hospital in New York City where he received seven electro-shock treatments for schizophrenia.

He had presented symptoms of mental disorganization and some paranoid beliefs regarding policemen watching him and attempting to shoot him. These symptoms can equally well be categorized *metabolic dysperceptions.*

On April 21, 1966 he was brought to me by his parents in the hope that niacin therapy might be more efficacious than electro-shock.

He was immediately started on niacin and continued with gradually increasing dosage until August 2, 1966. At this point, in one of his many furors he made homicidal threats against his brother, father and mother. His continued erratic behavior and paranoid idealization necessitated committment to Greystone Park State Hospital where he received insulin shock therapy over an extended period in the five months he was hospitalized.

Following this hospitalization period I again tried to get his cooperation in taking niacin in conjunction with Mellaril and Stelazine. However, he stopped the regime twice in the next two years, each time the signs of recurring breakdown appeared in less than a month and he decided, after much protestation to his parents, to return to the author for resumption of niacin, Mellaril and Stelazine.

In the last unreasonable episode before he returned again to me for help, the situation became so uncomfortable that his father moved out and a week later the patient did also, because the boy was so incorrigible.

However, since he has resumed the niacin, Mellaril and Stelazine combined therapy it is believed he will again be calmed down to a normal state as he has been on previous occasions when taking this medication. Actually he has not attained my estimate of a "50 percenter" but I feel the potential is there if his cooperation and interest in remission can be sustained.

Case A2 (CH 2055)

This patient is considered in this presentation a "50 percenter." She has been hospitalized three times in the past nine years for electro-shock therapy. Each time following a course of electro-shock she has been maintained as an outpatient on niacin. She has become very agitated at times over her various delusions and hallucinations.

On three occasions she became so psychotic that hospitalization was imperative. Her disturbed state was brought under control by electro-shock and she was returned to outpatient supervision in the community relatively quickly. It is noteworthy that for most of the time of her nine year illness she was able to remain at home and do an adequate job as wife and mother, instead of being hospitalized to *her* great agony and the deprivation of tender, loving care

of this husband and son.

Since I have known this patient during this entire nine year period and have seen the satisfactory long remissions she has experienced while taking niacin regularly, I am convinced she has maintained a rating of better than 50-50 improvement on niacin. She has had to have some hospital care during this period but with help of niacin she has only required it for a total of less than five months out of these nine years of *metabolic dysperception.*

Her *metabolic dysperceptions* were quite identical each time they were evident. She always firmly believed people were watching her with intent to do her harm and at the same time believed she could hear them moving about in rooms above her in her own home. She has described her hallucinations as: *"I hear voices saying they are going to kill me ... I am scared . . . My husband says it is my imagination. I feel Im being followed sometimes. It frightens me. I've tried to fight it but it always comes back."*

Unfortunately, she is one of the rare cases that develops edema of the legs if she takes over % of a 500 mg. tablet of niacin, consequently Diuril has been necessary to keep edema minimal. Of course the possibility is apparent that her gross psychotic episodes might have been prevented if she had received larger doses of niacin. She never was able to take more than 500 mg. per dose and often had to be kept on 375 mg. dosage.

It is evident that this patient has been more than comfortable over the years on the niacin regime even though her dose had to be restricted.

Case A3 (CO 2776)

Similar in many respects to cases 1 and 2 of the "50 percenters" is the anamnesis given by this 22-year-old man who is very anxious to describe the bizarre dysperceptions he harbors.

He states with great alarm: *"I am really frightened about what is going to happen to me. It's so unreal. I have this feeling I'm not able to control of being unable to work because of strange body feelings. Everything in me feels like rubber—like compressible thin rubber—and these strange body feelings make me feel very sick, as though I am going to die. I am a very sick person, really.*

"I've been very sick for the last four years, with feelings of insanity—as though I'd been here before, with feelings of unreality controlling me at such times. I'm so frightened about it that I'd give my car, my every possession in fact, to be able to control these odd feelings.

"On one occasion three years ago I had the strange feeling of sudden numbness when playing pool with a friend. I went home soon but the numbness became worse and I suffered extreme weakness and acted like a completely insane person. I began to scream and carry on very badly. The family doctor gave me medicine. He said I had high blood pressure and the medicine he gave me had no effect. I've had the doctor come to the house several times when I thought I was going insane.

"It was during this period that I was admitted to the best hospital in our area for tests and observation but they could not help me or tell me why my mind was going blank. Also during the period I was admitted twice to our county mental hospital but they could not help me. They did discover I was allergic to Thorazine, that I became worse when they gave me this medicine. It did me more harm than good, making it impossible to urinate or have a bowel movement. I could not go into the sun and had difficulty in swallowing or talking. All these strange happenings made me believe I was losing my mind.

"In addition to all this I have very strong sexual feelings for girls and if a girl walked in here right now with a short skirt and if

she had attractive legs, I think I'd grab her because these short skirts turn me on. But I know I'd be rejected because I cannot get the sexual hardening when close to a girl. My legs go limp as though that rubbery feeling took hold and my arms would feel limp and there would be no enlargement to go ahead with sex.

"It is very discouraging when this happens and the girl, whoever she is, will never let me come close to her again. Even with heavy petting I cannot get the enlargement."

It is particularly noteworthy how lacking he is in inhibitory control over his comments about sexual matters. This, however, presents a good example of *metabolic dysperception.*

A quick calculation convinces me I have had at least 50 more of these 50 percenters in the past 12 years.

CONCLUSIONS

1. For at least five years the conviction has been in my psychiatric thinking that the most rewarding regime any psychiatrist can advise for *schizophrenia* or its newly coined concept *metabolic dysperception,* is mega-B_3 (niacin vitamin tranquillizing therapy).

2. It was 12 years ago that this conviction began to permeate my thinking when I heard Dr. Abram Hoffer describe the hyper-niacin therapy and the rewarding experiences from its use by him and Dr. Humphry Osmond.

My personal experiences thereafter with this chemo therapeutic regime added new successful cases to those they had already described.

3. The use of Periactin to antidote the flush caused by niacin has eliminated much of the patient's discomfiture while getting started on niacin and during continued treatment over prolonged periods.

4. In the beginning it is best to start all niacin administered cases on not more than 125 mg. per dose given four times per day after meals, in order that a flush, if it does occur, may not be maximal and thereby alienate the novitiate in therapy right from the start—then gradually increase the dose to 1 gm. q.i.d.

5. In Linus Pauling's "Orthomolecular Psychiatry"[3] there is an excellent outline of the Hoffer-Osmond niacin regime. In all probability this use of mega vitamin B_3 to reduce the ravages of one of humanities most crippling illnesses is already being applied world-wide. More and more of today's vague diagnostic terms will be clarified, as Orthomolecular concepts are elaborated.

6. To my mind it is unfortunate that some who enjoy high prestige in various spheres of psychiatry have been content to join in the anvil chorus of alleged authorities who condemn and refuse to use mega vitamin B_3 (hyper-niacin) therapy for schizophrenia, without gaining first hand experience of prescribing this vitamin from even one or two specific cases.

A Challenge

As we move ahead in improving our understanding of this complex and baffling disorder I am glad to be one of the torch bearers that Dr. Kowalson envisioned in closing her paper by saying:

"Finally if there is any illumination in the torch that I carry, though my hands are not yet failing, I am proud to pass it on to those among you who may hold it higher and carry it farther than I."

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