

# The Children Who Should Have Been Passing But Didn't

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*Reporting a state-funded double blind project on the possibilities of reeducating learning disabilities through nutritional changes.*

Can what children eat mean the difference between passing and failing in school?

"Emphatically yes!" declares a group of parents, teachers and school personnel who have just completed a three year pilot study called the Ouachita Educational Nutritional Project in Ouachita Parish, Louisiana. The double blind study set out to determine the validity of the premise that refined carbohydrates, particularly white sugar, actually impair children's learning; and more importantly, replacing refined carbohydrates with natural whole grains, while adding more fresh fruits and vegetables to the diet, and completely eliminating refined sugars, will improve children's scholastic achievement and overall health and behavior.

Corroborating this premise are hard cold statistics from the final report. The evaluation for these statistics was done by Dr. Martin Weitzner with Gulf Systems, Inc., Metairie, La., a computer and software firm that does such work for the Louisiana Public School System. His findings in the form of tables follow this article.

The three year project is the brain child of Mrs. Bert Venable, coordinator of Region 8 (an 11

parish area with Monroe, La., Ouachita Parish, as her home base) for the Louisiana Department of Education, and John Robinson, Ph.D. of the State Department of Special Education. They hoped to show why some children, of above or average intelligence, with good motivation (at least initially), family support, no detectable psychological hang-ups, and with skillful teachers utilizing all the known techniques for improving school performance, continue to fail and work below grade level.

Repeatedly this question is asked by educators across the nation on an ever more urgent note, as the rate of incidence increases. Ouachita Parish Schools Superintendent ST. Howell says that at every superintendents' meeting the first concern is what is new in special education and does it work. A large part of the discussion time is devoted to means of handling classrooms of these children. Laws mandate that education be provided, and most educators sincerely desire to help children learn. But what do schools do when children who by all the criteria should be learning but don't?

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Mike McCall is Principal of Ransom Elementary School in West Monroe, Louisiana, Ouachita Parish center for classes for children with learning disabilities. In state education terms, this means any child who is having learning difficulties yet has not been evaluated as mentally retarded or disturbed. The enormity of the problem is constantly brought before him, not with charts and graphs and learned papers, but bright yellow school buses discharging live little bodies, boys and girls with impressionable minds requiring immediate attention. He puts it bluntly.

"Our teachers must deal with these children NOW. They have them six hours a day, five days a week. We simply have to come up with a better answer than self-contained classrooms and special techniques for L.D. and behavior modification."

What they came up with is the Ouachita Educational Nutritional Project, a pragmatic experiment workable in a public school and normal home setting. Though conceived by educators, it was based on results from scientific work, including that in orthomolecular medicine. John Robinson has long seen a direct relationship between highly refined foods with questionable nutritional value and special learning problems. "But", he says, "I am not a nutritionist so nobody paid any attention to me." Until fairly recently most nutritionists were not supportive of these ideas, which pediatricians and psychologists are only beginning to consider.

In searching for a common denominator as a factor in these children's poor school performance, they looked beyond the family unit. They felt the parents were reasonable and caring and as much victims as their children. Food seemed a likely first suspect.

Such items as refined flour and sugar have long been known to cause difficulties because they bring on erratic blood sugar levels and mood swings, making children (or adults) hyper or very fatigued, lessen their attention span while destroying essential nutrients contained in other foods. Strangely, though they are more destructive, the refined carbohydrates have not received the attention given to the preservatives and additives. Elimination of refined carbohydrates, additives and preservatives from the diet is not an expensive nor difficult testing method. It involves no health risk.

"We had to begin somewhere", Bert Venable answers when questioned why they chose the plan they did. "We combined concepts from several different programs with our own research. We visited a variety of teaching and developmental centers; we observed all sorts of children, including those so-called learning disabled. We also heeded the medical profession's advice to do the patient no harm. We were advised that what we recommended could not hurt these students, and we believed it would definitely help them."

Once Bert and John determined to build their program around a specially prepared school lunch (whole grains, unprocessed, chemically free meat, poultry, fish, eggs, cheese, fresh fruits and vegetables, some frozen but never commercially canned ones, and no refined sugars) they devised a plan which they submitted to Louisiana Superintendent of Education J. Kelly Nix.

He gave the project full support. It could not have been successful without him, the developers are quick to point out. Whatever reservations he may have felt for their approach were overcome by his concern that something be done for the increasing number of learning disabled children. Not everyone in the school system, including food services and dieticians, shared this willingness.

A physician knowledgeable about nutrition served as consultant. He also prescribed vitamin and mineral supplements on a general basis. Parents were urged to consult their pediatrician for any medical problem as the project did not provide medication nor individualized medical advice.

The real genius of their plan lay in the requirement that families follow at home the same observance of food selection as at school. The planners were wise enough about nutrition to know that the worth of a school lunch could be totally undone by what was consumed elsewhere. They also realized the average parent is not knowledgeable about nutrition so they developed a series of training sessions to simplify participation in the project.

They prepared written material in the form

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of separate booklets covering such topics as basic nutrition information, shopping for appropriate foods, meal preparation for the working parent on a modest income, label reading, menus and recipes using the desired foods, and alternatives to the empty snacks and junk foods. This was to be used in conjunction with once a week night workshops over a number of weeks for participating parents. Attendance was required.

Monroe was chosen as the location for control purposes. Mrs. Venable could serve as director "on site"; this was critical to success. Communication with parents could be handled more simply, and input from them was also critical for the program. Planning, purchasing, preparing and transporting meals to assigned schools was easier. Monitoring and follow-up would be more workable.

A parish wide invitation to hear a presentation on the proposed project was extended by mail to all parents of children attending the selected schools who were failing or near failure.

The program was advertised. Interested families were invited to workshops, and a number of follow-ups were conducted using both mailings and telephone calls. The purpose of this recruitment was to ascertain that the families ultimately included in the program would represent as broadly as possible the population of families with special education students in the participating schools.

It was emphasized that parental acceptance and cooperation were essential. The pilot program could not possibly be valid if it were not faithfully carried out. Perhaps the amount of effort involved was overstated, admits Bert, but she did not want parents to sign up only to drop out a few weeks later. There was no prior program on which to base success. However, Bert Venable and John Robinson believed in the potential of such children, they believed the parents were sufficiently concerned to be conscientious about following the requirements, and most of all, they believed their program would work.

After the meetings and discussions, nine willing if skeptical families were recruited for the Ouachita Educational Nutritional Project. They were an historic group. Word spread fast of what was underway, and some children begged to be allowed in the program. They cried

when told though they were doing poorly they could not be accepted without their parents agreement to home involvement. Some parents requested to be added and were allowed to join the following school year at the new testing period.

One father said after he had listened to Bert Venable's recital of nutrition related problems, affecting not only the child's school work but the entire family's well being and behavior, it sounded as if she had been investigating conditions at his home. His wife was attending a night class elsewhere. He was so certain this program was their answer he signed the family up without consulting her. His intuition was correct. Not only did the school work improve, other ailments and complaints of all family members disappeared.

The immediate results confirmed more dramatically than anyone had anticipated that nutrition had indeed affected these children's learning. "Hopeless failures" began improving. A child who had behavior problems and been regarded as possibly retarded for the first time in his school life read, computed, sat still at his desk, followed directions, understood assignments, socialized without getting into scuffles, joined the Boy Scouts, and began to feel he was not such a dumb undesirable kid after all. His parents continue to stick faithfully to all food restrictions, but they feel eliminating refined sugar alone would have brought about the improvement in their son. Refined sugar was the major offender in the opinion of all participating families.

An overjoyed couple watched with pride as their daughter read from textbooks without hesitation, never missing a word. She had always wanted to learn, and had tried her best as school, though until now she had been unable to read more than a word or two without a mistake.

Perhaps the greatest change was in the self-confidence of these children as they became achievers. It saved one boy from dropping out of school and possibly falling into an antisocial subculture. His mother's main concern had been his defeatist attitude. He had become so conditioned to failure he

thought it pointless to even try any more.

Every child progressed. Every family reported not only improved classwork, but relief from such seemingly disparate things as sinus, asthma, indigestion, "nerves", and skin problems. Parents, students, teachers, aides, cafeteria workers, bus drivers, school staff, relatives and neighbors of the children on the diet observed significant improvement in behavior and school performance. Praise for the program is enthusiastically volunteered at every turn.

Pleased as the program developers are with this showing, they caution parents to be aware that there are probably many factors to be reckoned with in learning disabilities. They were seeking a remedy workable within the public school system for some of the children. They felt if they could help any of the children the project would have proved worthwhile.

In the preliminary procedures they had hair analyses run on the participating children. Roughly 25 percent were in the medium high range for lead at the beginning of the program year. By the year's end, there were none. Ten percent were in the low magnesium category at onset of the program, and at first year's completion, there were none. Approximately 45 percent were in the middle or high cadmium range at the beginning of the year. By the end of that year, 30 percent were in the middle category and 70 percent were in the low category. Arsenic presented the most dramatic results. 55 percent of the students were in the middle category of arsenic at the initiation of the program, and by the end of the year all students were in the low category. Subsequent years showed even lowered levels of toxicity.

The program developers are aware of such contributing factors as allergies.

They remind those inquiring about the program that the 100 percent wheat bread served in their lunch program may not agree with everyone. In fact, Dr. Robinson himself says that he suffers adverse effects if he over indulges in whole wheat bread, and at home he and his wife frequently use rice flour.

Inquiries have come in staggering quantity. Bert and John were almost immediately deluged with requests to speak to parents' groups not only in Louisiana but neighboring states. Even their years of experience in special education had not prepared them for the numbers of desperate

parents wanting similar programs or information on how to implement their program at home. There are thousands of concerned parents whose children have been evaluated and tested and special ed-ed by a system that is just not working. Many teachers concur.

Several schools have independently taken up the program, with their assistance. The state school dietician and food services system is now cooperating in this project. Some dieticians continue to insist the diet had nothing to do with school improvement of so radical a degree. They suggest it was the attention paid to the children and the expectation of improvement. They also question the merits of vitamin and mineral supplements, which might even be harmful in large (whatever that determination might be) doses. Considering the skepticism everyone except the developers showed for the program, and the extremely low esteem held for the participating children, including themselves, that makes a weak argument.

In truth, it was originally feared that being singled out for participation might even add to their poor self image and performance.

The children participating in the special diet find their food superior in taste to the regular lunchroom fare. Though every effort was made to have the meals look the same, and protect against the stigma of being different, the food is not visually identical. Brown rolls replace white ones, for instance. This has not bothered the children, who would now not care how different their trays look, they are so pleased with what their diet has done. They intend continuing it after the school project is concluded. Nothing would persuade them to return to "the way it was".

The workshops and wonderful variety of booklets remove much of the hassle of meal preparation. What to fix and how to fix are there in the booklets for holiday meals, picnics, buffets, school lunches, beverages, and on and on. Four mothers got together to prepare refreshments for a classroom Christmas party one year. It was the class's most memorable party. No one knew until told that the vast array of goodies, drinks, confections, nibbles, chips and dips were all "that

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nutrition program food". The mothers had volunteered to prepare the refreshments because they wanted their children to be able to enjoy all the Christmas party treats, and also to show other parents "that nutrition program food" was delicious and reasonably easy to prepare.

The mothers of all the children in the program also prepared goodies to be sold along with the PTO after lunch treats so that their youngsters would not be deprived. They found their sugar-free sweets grabbed up first by all students and teachers as well, because they tasted so much better!

Mid-morning and mid-afternoon snacks of fruit or nuts or cheese were also included in the plan for participating children. Parents said keeping appropriate snacks on hand, and particularly being prompt with serving meals were important.

Some of the parents are expanding their involvement. One enthusiastic father has completed building his organic garden, and raised his first vegetable crop, a whopper of a harvest. He has taken on poultry raising, along with some livestock, assisted by a son who participated in the Ouachita project. He is now investigating cheese-making. All parents plan to continue their bulk purchase cooperative and will keep one another posted as to where they have located hard to find items.

Superintendent Howell receives inquiries about the program constantly. He is an avid supporter, so much so that his college age son goes out among his classmates and urges them to skip the drive-ins and junk food dispensers, and pay

attention to getting nutritious meals as well as hitting the books.

Participating students, parents and school personnel are too busy coping with success to be seriously bothered by scoffers. Parents do wonder why there is any unwillingness to investigate the merits of such an inexpensive, easily implemented program, as some professionals have displayed.

Considering the results of the evaluations, their wonder is understandable.

Since one of the study expectations related to the differential standard gains expected to be made in reading and math by the treatment group as opposed to their control counterparts, it was decided that for the third year of the study, efforts would be made to find a more sensitive instrument for examining student achievement in these areas.

Third year results focused on obtained data for the treatment and control groups in the areas of the Dolch Word List, Peabody Picture Vocabulary Test, as well as reading and math achievement as measured by the North Louisiana Consortium Board Basic Skills Tests, and pre-post-program changes in hair toxicity as measured for the treatment group. The results also focused on school attendance and on observed behaviors in the classroom, on the playground and in the home for both treatment and control groups. Tables follow revealing the happy results.

TABLE I Dolch Word List

Pre-Post Program Mean Scores and Mean Gain

	<b>TREATMENT AND PRE SCORES</b>	<b>CONTROL GROUPS POSTSCORES</b>	<b>GAIN POST-PRE</b>
TREATMENT GROUP N=19	<b>X</b> 147.8	<b>X</b> 175.7	<b>X</b> +27.9
CONTROL GROUP N=19	121.6	130.6	+9.0

TABLE II Peabody Picture Vocabulary Tests

Pre-Post Program Mean Scores and Mean Gain

	<b>TREATMENT AND CONTROL GROUPS</b>		<b>GAIN POST-PRE</b>
	<b>PRE SCORES</b>	<b>POST SCORES</b>	
TREATMENT GROUP N=19	<b>X</b> 76.8	<b>X</b> 116.8	<b>X</b> +40.0
CONTROL GROUP N=19	70.5	70.6	+0.1

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**TABLE III**

**North Louisiana Consortium Board Basic Skills Tests**

Mean Pre-Post Test Scores and Mean Gains on Reading

	TREATMENT AND CONTROL GROUPS							
	TREATMENT GROUP				CONTROL GROUP			
	N	Pre X	Post X	Post-Pre X	N	Pre X	Post X	Post-Pre X
Level I	4	13.25	23.3	+10.05	4	14.75	22.5	+8.25
Level II	4	17.75	24.0	+6.25	3	18.6	21.0	+2.40
Level III	1	36.0	35.0	+1.0	1	36.0	33.0	-3.0
Level IV	4	25.0	33.5	+8.5	6	21.3	27.75	+6.45
Level V	4	20.25	26.75	+6.5	3	24.66	18.66	-6.0
Level VI	3	25.0	29.6	+4.6	2	28.0	31.5	+3.5

**TABLE IV**

**North Louisiana Consortium Board Basic Skills Tests**

Mean Pre-Post Test Scores and Mean Gains on Math

	TREATMENT AND CONTROL GROUPS							
	TREATMENT GROUP				CONTROL GROUP			
	N	Pre X	Post X	Post-Pre X	N	Pre X	Post X	Post-Pre X
Level I	5	23.8	31.5	+7.7	4	26.0	31.75	+5.75
Level II	3	26.0	34.7	+8.7	2	22.5	26.5	+4.0
Level III	2	17.5	30.0	+12.5	5	36.2	38.4	+2.2
Level IV	3	27.3	34.3	+7.0	4	20.0	23.5	+3.5
Level V	5	22.6	31.4	+8.8	3	25.6	23.3	-2.3
Level VI	2	24.0	29.0	+5.0	1	22.0	26.0	+4.0

# Book Review

**Medical Applications of  
Clinical Nutrition**  
**Ed. Jeffrey Bland**  
**Keats Publishing, New Canaan, CT**  
**321 pages. Price \$25.00 U.S.**

Clinical nutrition is a branch of medicine which has been ignored by medical schools, but there are signs they are slowly developing a new interest in response to pressure from a public which has become disenchanted with traditional medicine. Even when they are ready to introduce nutrition to their students, they face a serious problem; there are very few physicians who have any experience in using nutritional principles for healing patients. They therefore bring in nutritionists or biochemists who are not clinicians and cannot inspire students to become interested. Even worse, they often repeat the old nutrition myths that all one needs is a balanced diet, that no one needs supplements and that only quacks or charlatans use nutritional and supplement therapy. Medical schools must have textbooks for their professors and students which provide accurate information. Eventually they will ease into the medical school curricula. This book, **Medical Applications of Clinical Nutrition**, would be very valuable for our newer-oriented medical schools.

Prof. Jeffrey Bland, editor of this volume, discusses the importance of nutrition to medicine and to prevention. Traditional or crisis medicine has not solved chronic disease nor learned how to prevent it. He suggests another way — an examination of people for factors which are inexorably driving them to disease and education of physicians and patients in ways of reducing or removing these risk factors. Dr. Bland has listed the warning signs of nutritional inadequacy and guidelines for criteria for evaluating these inadequacies by laboratory tests. Finally, Dr. Bland has a valuable chapter

on assessing one's nutritional status.

Dr. Donald R. Davis carefully reviews the role of RDA's in view of the remarkable diversity of biochemical needs and finds them of little value.

About 25 percent of our population is overweight and weight reduction is one of our rapidly growing industries. Drs. William D. McArdle and John R. Magel discuss the problems of weight management using nutrition and exercise; both must be combined for optimum results.

It is difficult to believe, but many nutritionists and physicians still do not know that simple sugars and complex carbohydrates (starches) are not handled the same way by the body. Dr. S. Reiser summarizes the evidence that feeding sucrose increases many of the risk factors for degenerative diseases, compared to starch. A smaller section of the population is at substantially higher risk.

Doctors H.K. Naito and H.F. Hoff consider the relationship between hardening of the arteries and nutrition. It is very complex, but there is little doubt malnutrition is one of the primary risk factors.

In my chapter I try to show how bad nutrition can cause bad (abnormal) behavior.

Dr. Raymond Shamberger reviews some of the effects of vitamin deficiencies. Dr. Dennis Burkitt, one of the pioneer physicians who brought fiber back into medicine, discusses the importance of eating fiber-rich foods. Finally, Dr. S. Rigden outlines practical ways of adding nutritional practice to a general medical practice. He describes the importance of being careful and precise with patients and the use of specially designed literature. An informed patient has a much better chance of becoming a cured patient. All in all, this is a very valuable book.

**A. Hoffer, M.D., Ph.D.**