

This address was given by Dr. Ben F. Feingold and shared with us by Mrs. Thelma Dalman, R.D., a guest speaker at the FAUS Conference, 1985.

"COMMITMENT TO EVERY CHILD"

CALIFORNIA SCHOOL FOOD SERVICE ASSOCIATION
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Ladies and Gentlemen:

I am pleased to be with you today to discuss the importance of the School Food Service Program, not only as it relates to the destiny of our country but actually the future of the human race.

Tehyi Hsieh, a Chinese scholar, wrote, "Look at the nation's schools, for there you will find its future in miniature."

When we examine the situation in our schools, it does not portend a very hopeful or promising future for our country.

Performance as measured by the Scholastic Achievement Test (or so-called SAT Test) has declined persistently over the last several decades, and it continues to drop.

Truancy is on the rise. The National Institute of Education in a recent report notes that 25 percent of American school (20,500) suffer from moderately serious to serious problems of vandalism, personal attack and thievery. The Institute estimates that in 1978 one out of every nine secondary school students will have something stolen in a typical month. It further estimates that one out of 80 students will be attacked during the same period. It is this situation that prompted HEW Secretary Califano to state that a student is safer on the streets than in the halls of our schools.

The NIE report goes on to state that among the one million secondary school teachers, 5,200 will be attacked -- one fifth, or about 1,000 of these seriously in any month, while 6,000 will be robbed. And further, it is estimated that vandalism will cost about \$600 Million a year -- an amount greater than the expenditure for textbooks.

This adds up to a very critical situation which in great measure is a reflection of the 10,000,000 or more children in this country who are troubled with behavioral disturbances and learning disabilities, of whom 5 or 6 or perhaps even 7 million are labelled as hyperactive or hyperkinetic -- and of this number conservatively 2,000,000 are on various behavior-modifying medication, e.g. Retalin, amphetamines, Mellaril, Stelazine, Tofranil, Elavil, Cylert, etc.

Several causes have been advanced for this critical situation, including the breakdown of the nuclear family; the increasing divorce rate, resulting in the rise of the single parent family; permissiveness at home and at school; social unrest; and a variety of ecological factors. But perhaps the most important is the link with the ingestion of food additives, more specifically the artificial food colors and flavors, the antioxidant preservatives BHT and BHA, and a small group of foods that contain natural salicylates, a compound related to aspirin but not identical to it.

The use of additives in our food supply goes back thousands of years, perhaps over 8,000 years, when man began to abandon his nomadic existence and became a food cultivator rather than a food gatherer and hunter. Although there were many

advantages in this altered lifestyle, primitive agricultural techniques limited production. As a result, large segments of the population were tied to the soil to provide the necessary food. To release man for other occupations, e.g. the arts and sciences, required the development of techniques for the preserving, storage and transportation of food supplies.

The earliest procedure was drying, usually in the sun, and then more rapid drying by exposure to the open flame, which introduced another factor, smoking. Smoking on the other hand was the beginning of the introduction of organic components into our food supply. Then the use of fermentation and alcohol were developed, and later, salting, pickling with vinegar, and more recently, spices of various types.

All these procedures developed and changed at a snail's pace -- over a period of centuries -- actually, thousands of years. It was not until the late 18th century, with the development of heat processing techniques, which permitted canning and more recently refrigeration and freezing, that food processing techniques were accelerated and permitted industry to expand its capacity to store and distribute food. With the advent of organic chemistry in 1832, the greatest impetus resulted from the introduction of synthetic chemicals.

Thus, it will be noted that for 90 percent of the history of additives, over a period of thousands of years, their use was very limited, involving no more than fifty compounds, including spices. But over the last several decades, and particularly since World War II, the use of additives has been greatly accelerated, so that now only a year or two may be required for the introduction of a new chemical additive. As a result, there are presently approximately 4,000 additives introduced into our food supply.

When additives were introduced slowly over a period of centuries, actually thousands of years, only a small segment of the population was involved, which made it possible through direct human experience to recognize hazards. Since few people were involved, it was a simple matter to remove toxic products from the foods in general use.

However, today, not only do we have thousands of additives so pervasive in our food supply it is difficult to avoid them, but the original function of additives has been altered.

The primary reason for using an additive is no longer to protect and preserve the food supply. Today the majority of additives have an aesthetic or cosmetic function, i.e. to beautify food, to make it more attractive to the eye and more seductive to the palate. As a result, industry and their food technologists have overlooked almost completely the inherent risk factor in most of these compounds, particularly over the long term when carcinogenic and teratogenic alterations must be evaluated.

And in this oversight the developers and promoters of additives have failed to recognize that EXCEPT FOR TERMINOLOGY, THERE IS NO DIFFERENCE BETWEEN A COMPOUND LICENSED FOR USE AS A MEDICATION AND ONE INTRODUCED INTO OUR FOOD AS AN ADDITIVE. They are identical. Both are low molecular weight compounds. Yet in spite of this identity not one of the thousands of chemicals used as additives has ever been subjected to pharmacological studies such as required of a compound licensed for use as a drug. So, actually, we know practically nothing about the behavior in the body of compounds used as additives. It is my understanding that since the Kennedy Committee hearing on September 11, 1975, all new additives must be subjected to pharmacological investigation.

Data gathered by the Food Protection Committee of the National Science Foundation in 1965 lists 2,764 compounds classified in 13 categories. There are no more current figures. As I have already indicated, the number approaches 4,000. It is not possible to arrive at absolute figures, because of the great number of secret formulae and the fragmentation of jurisdiction among nine governmental agencies.

In our discussion today we are concerned only with adverse reactions induced by three categories -- the synthetic colors, the synthetic flavors, and the antioxidant preservatives BHT and BHA. However, this does not imply that the remaining categories do not cause adverse reactions, because they do.

It must be recognized that ANY COMPOUND IN EXISTENCE, WHETHER NATURAL OR SYNTHETIC, HAS THE CAPACITY TO INDUCE AN ADVERSE REACTION IN ANY INDIVIDUAL WITH THE APPROPRIATE GENETIC PROFILE, OR PREDISPOSITION. ACCORDINGLY, NOTHING IS EXEMPT.

But the colors and flavors and BHT and BHA are the most pervasive of all the additives in our food supply, involving about 80 percent of all foods. Any by virtue of this wide distribution they are responsible for adverse reactions affecting every system of the body.

You will note that the term "adverse" and not "allergic" reactions is used. Allergy involves the immune system, or the protective mechanism of the body. Since these compounds apparently do not involve the immune mechanism, they are not allergic in nature.

Of all the adverse reactions perhaps the most critical are the behavioral disturbances.

It is estimated that 10,000,000 children in this country are suffering behavioral disturbances and learning disabilities, and of these, conservatively 7,000,000 are hyperkinetic, or hyperactive.

Hyperkinesis is an umbrella term that encompasses a number of deficits occurring in three categories.

1. The behavioral disturbances
2. The muscular disturbances
3. The cognitive and perceptiye disturbances

Under Behavioral disturbances we observe:

Marked hyperactivity and fidgetiness

Compulsive Aggression

Excitable -- Impulsive

No Patience

Short Attention Span

Poor Sleep Habits

Self-Mutilation (Nail biting, Scratching, Tearing of skin, Life-threatening behavior

Antisocial Deficits (Low self-esteem, Abusive -- foul language, Lying and stealing,

Unprovoked assault, Defiant -- disobedient, Delinquent, Withdrawn)

Gross Muscle Incoordination

Fine Muscle Incoordination

Cognitive and Perceptive Disturbances

Normal or high IQ but fails at school
Boys involved 7:1
Rarely more than one child in a family

Not all the deficits occur in every child. Each child has his own mosaic, made up of one or more deficits from each category. Some children are not hyperactive. Not only does the pattern vary from child to child but for any given child, may vary from day to day and even from hour to hour. That is why so frequently these children are labelled as "Jekyll and Hyde".

Because of this great variability and lability of the pattern, a large number of terms has been applied to the same condition. All this makes for much confusion in the literature and complicates clinical identification and management of these patients.

Because of the great variability and lability it is difficult to arrive at estimates for prevalence. There have always been about 1-1/2 to 2 percent of such children, but today the most conservative figure is 5 percent, the highest, 40 percent of all school children. Perhaps a more accurate estimate, yet still realistic is about 18 to 20 percent of all children.

We and others around the world have been able to control successfully the observed behavior in 60 to 70 percent of these children, with a diet eliminating all artificial colors and flavors, the antioxidant preservatives BHT and BHA, and a list of foods with a natural salicylate radical.

The time required for a favorable response in great measure is related to the age of the child. For example, in the young infant up to about 2 years of age, the most common complaint is sleeplessness. The infant sleeps only a few hours a day and is constantly crying, restless and fretful. Often the pattern is that described for colic. We have observed that the most common cause of this pattern are the pediatric vitamin drops, a rich source of artificial colors and flavors. By discontinuing the vitamins and other sources of colors and flavors, the child will show a complete reversal of the behavioral pattern within 24 to 36 hours.

The child from 3 to 5 years of age, which includes the nursery school and kindergarten period, will show a response within 3 to 5 days. The older child, from kindergarten to 12 years of age, usually responds within 10 days or 2 weeks, but occasionally it may require 30 to 40 days on the diet for a good response to be observed, especially if the child has been receiving behavior-modifying medications, e.g. amphetamines and Ritalin.

Post-puberty the problem becomes a little more complex, but even a large number of older children show a favorable response.

Fortunately, in the majority of children the learning disability is secondary to the behavioral disturbance, i.e. the inability to sit still, the inability to concentrate and pay attention, resulting in failure at school in spite of a high IQ. However, when behavior is controlled, the entire pattern improves, including muscular incoordination and the inability to learn. In such children it has been our experience that within a month a child who had been failing at school may prove to be the brightest child in the class.

In this country there are reports of improvement in observed behavior following dietary management, by Connors; Goyette and Connors; Brenner, and even the University of Wisconsin study subsidized by industry. In Australia, Cook and Woodhill have

reported favorable responses. In addition, consideration must be given to the many thousands of favorable responses to dietary management reported by parents from not only this country but from around the world, including Australia, Canada, England, Norway, Germany and South Africa.

With the recognition that dietary intervention influences behavioral disturbances and learning disabilities, it brings us to the role of the School Food Services, which entails immediate and long-term programs.

The immediate program involves providing foods for luncheons and breakfasts free of synthetic colors, flavors and the antioxidant preservatives BHT and BHA.

I appreciate that this requirement encounters some conflict with the federal specifications for type A lunch planning. However, a few substitutions from the open market can provide an adequate, nutritious meal suitable for the special child, with very little if any additional cost per unit.

Recently, I met with Dr. Peter Relic, Deputy Assistant HEW Secretary for Education, to inspect the school lunch program in Suffolk County, Long Island, New York, where an alternate menu is provided for children under dietary management for behavior and learning disabilities. We inspected the commissary facilities and were informed by Mrs. Clara Davis, the nutritionist in charge, that with a few substitutions in the federally provided products, a well balanced, nutritious meal could be provided with little or no additional cost. The additional cost, about 15¢, is now being absorbed by the parents.

The long-term program involves prevention and instruction in the field of nutrition as it relates to health, behavior and education. Much has been written about health, behavior and education, but very little has been said about the importance of nutrition in achieving the desired objectives in these areas. And further, much has been said and written about nutrition education but very little about food education.

The state requires compulsory education for 12 to 13 years of the child's life. Yet, in spite of the fact that a child spends the greater part of this developmental period in the classroom, rarely if ever is the important role of the food delivery system recognized for its relationship not only to nutrition but also behavior, health and educational performance. This contention is well supported by the fact that food service directors of schools are not considered members of the teaching faculty, but rather a part of the service staff.

To correct many of the deficiencies in our schools, it is recommended that the entire food program be incorporated into the curriculum from kindergarten through the secondary schools. The children at all levels should actually become involved in all aspects of the food program, including production, delivery, planning of meals, preparation and serving of foods. Commencing at the kindergarten level, food can be used as a vehicle for teaching reading, writing and arithmetic, as well as its role in good nutrition, health, behavior and educational performance.

To assure success for such a program, it becomes imperative that instruction in nutrition be offered in teachers' training programs. And further, it becomes imperative that food service personnel be part of the teaching faculty.

To some this may sound like an impossible dream, but actually it is quite realistic.

Just last Tuesday, March 14th, I met with the Deputy Assistant HEW Secretaries for Education and Health, and the Assistant Director of the National Institute of Mental Health. They are aware of the situation and recognize the need for incorporating the School Food Services into the teaching staffs. They also support the position that the correction of our critical situation relating to health, behavior and education cannot be mandated nor legislated. The resolution depends upon grass roots involvement, with each individual recognizing his or her responsibility. This must be achieved through public awareness, followed by commitment and then individual participation.

There is no better place to start such a program than in the schools, teaching the children the importance of proper diet to achieve good nutrition, which is essential for good health, good behavior and satisfactory scholastic performance. Through the children, parental interest and involvement can be cultivated, which in turn will spill over to the community.

I know parental involvement can be realized. Most parents are seeking and eager for counselling and guidance in the dietary management of their children, and particularly when they learn that instead of disruption at home, conflict with peers and failure at school, proper diet can mean a happy and serene home life, normal social relationships and most importantly, satisfactory scholastic performance.

I speak from experience in this area, since there are now over 120 parent associations in this country, many with a membership of one, two or even three thousand families. In addition, there are now successful associations of parents in Australia, Canada, England, Norway and South Africa.

It is important to recognize that all the parents groups both in this country and abroad have developed spontaneously in response to favorable experiences. If trained resource personnel could be made available, I am confident practically every school district in the country could become involved. That would be a true grass roots movement.

A similar program for the organization of parents should be extended to each school district in the country. Coupled with education in the field of nutrition in all grade levels, I am confident we can reverse many of the ills plaguing our contemporary culture.

In such a program I can visualize an extremely important role for the school food service personnel. I can picture a change in their image from purveyors of food to educators who occupy an important position in the educational process of the community.

This same image of educators can be extended in the relations to non-educational institutions where food is served, to carry the message that proper food means good nutrition with all the ensuing benefits of physical and mental well-being.

All this adds up to the theme of your conference, "A Commitment To Every Child".

I congratulate you upon your silver anniversary and wish you well for the next 25 years, with the hope that your golden anniversary will celebrate the many important contributions you are destined to make toward the health, welfare and happiness of our country and the people of the world.