AN ANALYSIS OF THE
Eating Habits
OF THE PRE-SCHOOL CULTURALLY DIFFERENT CHILD

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THE EATING HABITS OF THE CULTURALLY DIFFERENT CHILD

Problem:

The problem of this study was to analyze the eating habits of the pre-
school culturally different child.

Purposes of the study:

It was the purpose of this research (1) to determine the general diets of the 15 pre-school (Head Start) children selected from families with less than $2,000 income in Rowan County, Kentucky; (2) to compare the actual diet of the children studied with the United States Department of Agriculture's recommended basic four food groups (a standard yardstick for a well-balanced diet).

Rationale:

Many children are affected by environmental factors which limit their aspirations and their achievements in the process of education. Material and cultural deprivation seem to have imprisoned the intellects of these children. The lack of nourishing food to build strong bones and tissues, to provide for proper growth and development and to give the body its energy to accomplish the many daily tasks is a blockade which poverty places on the road to education.

Never before in the history of the United States has there been such a War on Poverty. As President Lyndon B. Johnson has said, "This is the first work of these times." Many of these innocent victims of misfortune lack awareness of themselves as persons. These children especially need to be taught good eating habits, personal hygiene, orderliness, and manners. Nutritionists have infrequently studied the nutrition of the disadvantaged child.
per se, although they have done work with low income families on an individual family basis.

There is no easy, quick cure, but it is vital that educators, parents, and others make a national effort to improve all aspects of the child's growth and development by preparing a sound nutritional program. The effect of an educational program to improve the diet of these children is a major step forward, and it is hoped that this endeavor will leave a permanent mark. There must be an optimistic view that new ideas and the awareness of a proper daily diet will be a good influence upon the deprived child and will be an important element in the child's encounter with life.

A deficient diet is a very frequent occurrence among the culturally different children. Cyrus M. Johnson, with the cooperation of the Departments of Sociology and Rural Sociology at the University of Kentucky, in his recent research of families participating in the program of Aid of Families with Dependent Children and Unemployed Parents (AFDC-UP), has found that the diet of these persons is not sufficient or adequate. These participants of such a program, and many people of their kind, need to be informed of good eating habits and the importance of a good diet, but first of all the general diets of these families must be obtained and recognized.

"The undernourished child is not able to concentrate well and can listen for only short periods of time." The causes of an impoverished child's absence from school, or even the case of the child permanently dropping out of

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1New Jersey Education Association. The Undernourished Child: A Program for Action, 1965
school, may result from the fact that the child does not have enough energy to meet the active and attentive demands of a classroom situation.

The people in simple societies generally tend to eat haphazardly, partly from the lack of enough food, utensils, dishes, and chairs to go around. Food preparation involves time and planning, and these homemakers, often working under very limited conditions have the tendency to neglect planning for future meals. "It is culture that determines and permits the elaborate motions required to procure, process, cook, serve, and eat food." The culturally different children need to have meals everyday that will be nutritionally desirable. Since the home provides little informal education, especially in the pre-school years, it is often the responsibility of the school to teach the importance of good eating habits.

The present analysis on the eating habits of the culturally different child is far from sufficient, yet research alone is not enough. This research will have little value unless it is made known to individuals who can use it. Through current studies, the challenge must be met to provide an opportunity for the economically deprived child to participate in cultural pursuits never before available. As a result, the child will suddenly find himself in a situation where he is being helped to develop as an individual and where his talents may be uncovered.

Method of the Study:

The information for this study was secured through the following procedures:

(1) Observations of the pre-school children were made for one week as

2Kentucky State Department of Health, Division of Maternal and Child Health, Institute on Growth and Development, August, 1963
they ate the noon meal and afternoon snack at the Child Development Center at Morehead State University to determine eating habits, likes and dislikes of food items.

(2) Personal interviews with the 15 children during the activities of the Head Start Program reflected foods liked and disliked and revealed the foods most familiar to the children. The children were also asked what they usually ate at home for breakfast and the evening meal.

(3) A visit into the homes of these children presented the opportunity to interview the mother or guardian. The homemaker was asked what foods the child especially liked and disliked. She was further asked, in a second interview, to name the foods the child had eaten for breakfast and the evening meal over a three-day period.

(4) In order to determine the amounts of foods eaten which would be indicative of likes and dislikes, the portions served the children during each meal over a four-day period were measured. In order to determine the accurate food volume served, the container was weighed and then the food and the container were weighed. After finding the actual food volume, notations were made indicating the children who did not want a certain food on their plate and those children taking second servings. The first and second serving had the same volume and each child’s record was kept on a separate sheet. The remaining food on the plate was weighed and the total food consumption was calculated. The result was the volume of the various foods eaten, thus expressing likes and dislikes. The food items used in the study were the foods from the weekly menu prepared by the Morehead State University cafeteria.

(5) A comparison was made of the actual diet of the child over a three-day period and the recommended USDA diet in the basic four food groups.
(6) The current record of the physical examinations and dental examinations were obtained.

(7) A simple nutritional education program was evolved to relate the essentials of a balanced diet to the families of the children studied.

(a.) A home economist met with the mothers of the children and discussed food likes, food dislikes, allergies, and specific eating problems.

(b.) Since the Morehead State University cafeteria prepared the food for the Child Development Center, a list of available food items was presented to the mothers. From this discussion, basic menu patterns were developed.

(c.) An understanding was reached that new and nutritious, attractive, and well-planned meals for the particular age group of children were planned to be used in the home.

Findings:

In February of 1966 the Child Development Center was started in Rowan County, Kentucky. Since Rowan County is a mountainous area with widespread poverty, the program's purpose was to give fifteen of the county's pre-schoolers a "head start" before they enter the first grade where children of varying background and economic status will learn together.

An important part of the Head Start Program is to meet the child's nutritional needs. The children are served a nutritious meal during the time spent at the center and are given a snack of milk and cookies in the afternoon. Determining the diets and nutritional status of the children and encouraging good eating habits are essential to the over-all program.
Recommended versus actual diet:

By using the United States Department of Agriculture's recommended number of servings for the basic four food groups for a three-day period, the actual number of servings during this period of time as determined by interviews with children and parents was compared. The deviation was tabulated for individuals and for the group. Since the observed value of $\chi^2(3.4650)$ is less than the .02 level of probability ($9.837$) it was concluded that there was no significant difference between the recommended and actual servings.

Table I.

RECOMMENDED DIET VERSUS ACTUAL DIET PER CHILD

IN THE CHILD DEVELOPMENT CENTER

<table>
<thead>
<tr>
<th>Basic Four Food Groups</th>
<th>USDA Recommended Servings in a Three-Day Period</th>
<th>Average Servings in a Three-Day Period</th>
<th>Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Milk and Milk Products</td>
<td>6</td>
<td>7.5</td>
<td>+1.5</td>
</tr>
<tr>
<td>2 - Meat and Meat Substitutes</td>
<td>6</td>
<td>7.35</td>
<td>+1.35</td>
</tr>
<tr>
<td>3 - Bread and Cereal Products</td>
<td>12</td>
<td>6.62</td>
<td>-5.38</td>
</tr>
<tr>
<td>4 - Fruits and Vegetables</td>
<td>12</td>
<td>9.97</td>
<td>-2.03</td>
</tr>
</tbody>
</table>

The data compiled showed that among the individuals the following deviation occurred in food group 1 (milk and milk products): ten children had over the USDA recommended number of servings for the three-day period, three had
the same number of actual servings as recommended, and two had fewer actual servings than recommended. In this food group there is not a significant difference between the actual number of servings and that recommended. However, it should be noted that each child received two servings of milk per day at the Child Development Center, or a total of six servings in a three-day period. Therefore, each child received the exact USDA recommended servings of milk at the Head Start Center.

As shown in Table I, the average of the group was 7.5 servings of milk which means that on the average each child had only 1.5 servings of milk for the three-day period outside of that served at the Center. It is evident that the Head Start food program greatly contributes to each child receiving proper requirements in food group 1.

In food group 2 (meat and meat substitutes) ten of the children had more actual servings than the USDA recommended number; one had the same number of actual servings as recommended, and four had fewer servings than recommended. Although there is not a significant difference between the number of actual servings and recommended servings in the three-day period studied, it is evident that the Head Start meals are greatly responsible for the high number of actual servings in this category. Whereas the Head Start lunches had a very high number of meats and meat substitutes, there were numerous instances in which no meats or meat substitutes were served at meals eaten at home. The average number of servings for the group of meat and meat substitutes was 7.35, or 1.35 above the USDA recommended number.

In food group 3 (bread and cereal products) all 15 of the children had less actual number of servings than recommended. In fact, the average number of actual servings for the group for the period studied was only slightly
over half of the USDA number of twelve recommended servings. However, there was not a significant difference in this group.

Corn bread was a favorite with the children, although the majority of the children studied did not regularly eat bread with home meals. Thus, the lack of bread products for the period of time studied revealed a deficiency in this food group.

In food group 4 (fruits and vegetables) 13 of the children had fewer actual servings than the recommended number, but there was not a significant difference. One child had more actual servings than recommended and one had the same number of actual servings as recommended. These data show that for the period studied the group was deficient in fruits and vegetables. They averaged two servings less than the recommended 12. These data, plus daily observations of eating patterns and personal interviews revealed general eating habits.

Food likes and dislikes:

Of the foods contained in the four basic food groups, milk and milk products are by far the best liked. There were 56 servings of milk and milk products over a period of four days and only 11 portions were uneaten, or 20 per cent. A portion was defined as 25 per cent of the original serving weight. There were 14 participating in this project.
Table II.

BASIC FOOD GROUP MEALS SERVED
VERSUS PORTIONS UNEATEN*

<table>
<thead>
<tr>
<th>Food Group</th>
<th>Number Meals Served</th>
<th>Portions Uneaten**</th>
<th>Percent of Portions Uneaten</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Milk Products</td>
<td>56</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>2 - Meat and Substitutes</td>
<td>70</td>
<td>39</td>
<td>56</td>
</tr>
<tr>
<td>3 - Bread and Cereal</td>
<td>56</td>
<td>29</td>
<td>52</td>
</tr>
<tr>
<td>4 - Fruits, Vegetables</td>
<td>154</td>
<td>74</td>
<td>49</td>
</tr>
</tbody>
</table>

*There were 14 Head Start children participating
**Portion defined as 25% of original serving weight

When comparing the basic four food group deficiency with the food likes and dislikes in these four categories, it is interesting to note that milk and milk products is unquestionably the best liked.

Fruits and vegetables was the next best liked food group, showing a slight edge over the bread and cereal groups. Of 154 servings of fruits and vegetables, 74 portions were uneaten, which was 49 percent of the total. There were 29 uneaten portions of bread and cereal products out of a total of 56 served which was 52 percent of the number served. According to the four-day study, over half of the meat and meat substitutes portions were uneaten.

Although meat and meat substitutes are the second highest of the food groups served during the three-day period, it is last among the best liked groups; perhaps an indication that a variety of foods and various ways of preparing
familiar foods are needed.

Fruits and vegetables had the third highest average of servings, but was the second most preferred group. The bread and cereal food group was last in the average number of servings, but was third among the food groups according to the children's likes.

Relationship of eating habits and weight:

Results show that out of the fifteen children studied, eight children were underweight, six were overweight, and one weighed the recommended weight for his height. The underweight group comprises 53 per cent of the total with an average deficiency of slightly over three pounds. The overweight group comprises 40 per cent of the total with an excess average of slightly over four pounds. The normal weight child comprises seven per cent of the group. It should be noted that a child could weigh the appropriate weight for his height and still not be receiving the proper nutrients.

Table III.
WEIGHT VARIATION FOR STUDENTS IN THE CHILD DEVELOPMENT CENTER

<table>
<thead>
<tr>
<th>Weight Category</th>
<th>Number in Category</th>
<th>Per Cent In Category</th>
<th>Average Pounds Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>1</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Overweight</td>
<td>6</td>
<td>40</td>
<td>4.21</td>
</tr>
<tr>
<td>Underweight</td>
<td>8</td>
<td>53</td>
<td>-3.06</td>
</tr>
</tbody>
</table>
Summary:

A comparison was made of the individual's and the group's actual diet with the USDA recommended diet in the basic four food groups. This comparison revealed that there was no significant difference between the actual number of servings in the food groups and the recommended number of servings. The milk and meat group showed an average serving excess of 1.5 and 1.35, respectively. A deficiency of 2.03 servings of fruits and vegetables was revealed. It was noteworthy that the excess servings were provided by the Child Development Center. Since only half of the required amounts of the bread and cereal group was actually served, a deficiency was revealed in this group.

By measuring the individual servings of food items at the Child Development Center for a period of four days, it was possible to determine likes and dislikes of the basic four food groups. It was learned from this study that milk is by far the most popular food with the children. Following this group, fruits and vegetables, bread, and meats were favored in the order mentioned.

A study of actual and recommended weights of the children revealed considerable variation. Eight of the children averaged three pounds underweight, six were approximately four pounds overweight, and one was average for his age and height.

Medical examination observations, specific medical disorder listings, and post examination recommendations of the examining physician were studied and tabulated. There was no evidence to show that the eating habits of the children had caused the medical disorders discovered by the doctor. However, it was possible to surmise that poor nutrition has played a role in these medical disorders.
Recommendations:

A review of the literature revealed few studies compiled on the eating habits of the culturally different child. There is need for additional studies in this area.

Since parents of culturally different children are reluctant to participate in group instruction centers, a home instruction program designed for the individual child should be planned and executed jointly by parent and teacher and the results evaluated.
SELECTED REFERENCES

Council of the Southern Mountains, Inc., The Council Bylaws.


