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Eating Trends in Childhood

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EATING TRENDS IN CHILDHOOD

by

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Abstract

Children ages 6 through 11 years are progressing in many aspects of their life. Of interest, children are establishing eating patterns that will be carried throughout their lives. Some of these patterns can be considered problematic and need to be addressed, these include: overfeeding or obesity, adequacy of major minerals and establishing healthy eating patterns. We conclude that while some children's eating patterns are problematic, there are means to resolve these trends. They include counseling, family involvement, physical exercise and nutrition education in school at a young age.

Introduction

Children, defined as grades kindergarten through fifth or roughly ages 6 through 11 years progress through a series of changes. Although growth slows, personal independence is established as well as a value system (1). As feeding skills and independence are developed, naturally eating patterns or trends are established that will last for their entire lives. Many of these trends have recently been implicated as problematic and some have severe consequences attached to them.

The first of these problematic eating trends is overfeeding or obesity in children. The adequacy of minerals in children is the next concern. And finally that of establishing healthy eating patterns in children to prevent eating disorders and other unhealthy eating patterns.

Childhood Obesity

In 1999 the results of the National Health and Nutrition Examination Survey (NHANES) using height and weight measurements indicated that 13% of children between the ages of 6-11 years were overweight (2). Overweight and obese children can be defined

for Disease Control's BMI-for-age growth chart. Children would then be considered overweight if their BMI values were at or above the 95th percentile (2).

Looking back over time we see an increasing trend of obesity in children. Table 1 represents the prevalence of overweight among children and adolescents for selected years.

Table 1 – Prevalence of Overweight Among Children (3).

Age (years)	1963-65 1966-70	1971-74	1976-80	1988-94	1999
6-11	4	4	7	11	13

It is clear that between 1963-1980 children's weight had remained relatively stable. However between the years 1980 to 1999 the percentage of overweight children almost doubled from 7% to 13%.

The implications of these statistics are severe and not easily remedied. The results of obesity in childhood have "serious physical and psychological afflictions, such as respiratory complications, glucose intolerance, cardiovascular disease, social distress, and sometimes even eating disorders" (4). So then the question must be asked, how are children becoming overweight?

A number of genetic and environmental factors can determine a child's weight. It has been estimated that genetic factors determine body fatness in the range of 25% to 80% (5). Studies have shown that there is a correlation to BMI and biologic parents (5). There have been studies that show a small difference in metabolism in obese children versus normal weight children. This subtle difference in low metabolism can put an individual as risk for obesity, however normal weight children have shown the same low metabolism and remained a healthy weight (5). The implications of the role genetic factors play on obesity in children are complicated. If children are genetically at risk for obesity there is little health professionals can do to intervene. However if genetics is a factor, families can offset the harmful effects of obesity

the harmful effects of obesity by eating healthy, low-fat foods and regularly exercising so they can avoid becoming morbidly obese.

Many environmental factors such as the media, overfeeding, consuming "empty" calories or high fat food, a decrease in physical education in schools and other societal factors continue to increase caloric intake and decrease physical activity (5). There is a strong correlation with obesity and television viewing; also video game playing and lack of sports physical activity increase a child's risk for obesity (5). One third of meals are eaten outside of the home, more often at fast food restaurants where 45%-55% of calories come from fat (5). The National Longitudinal Survey of Youth, a prospective cohort study conducted from 1986 to 1998 found that childhood overweight is increasing rapidly among African Americans and Hispanics (6). Much of this can be attributed to economic and health disparities in minorities. The Consumer Price Index data has shown that the real price of fresh fruit increased by 54% and vegetables by 35% from 1986 to1998 (5). And to make matters worse the real price of carbonated drinks decreased 22% during that same time period (5). Also the price for meat, sugar, snacks, fat and oil have declined during 1986 to 1998 (5). The majority of the foods whose prices have declined are foods that have high fat and high sugar content or commonly known as "empty calories". Children of low socioeconomic status are obviously not consuming many of the essential nutrients needed to adequately function. This is primarily due to lack of money and the results are putting on excess weight from the "empty calories" in the foods they are consuming.

Treatment for obese individuals may include family counseling, dietary modification and exercise. Family counseling may benefit all parties participating. Parents can change their eating habits and reduce weight at the same time. Also it is important to have

parental support for the child to make the weight loss and modification a positive experience (5). A low-fat diet is recommended, snacking on more nutritious foods is suitable and using the food guide pyramid as a guideline for eating is highly acceptable (5). Regular physical activity with the parents support is necessary in any weight loss in obese children (5).

Adequacy of Minerals

Adequacy of certain minerals in childhood is a negative pattern long standing in the United States today. The main minerals of inadequacy are calcium, iron and zinc. These minerals are not necessarily correlated with socioeconomic status. They are a major concern throughout the entire U.S. population. Calcium intake is essential for bone growth and mineralization of bone (1). The recommended amount of calcium for children ages 7-10 is 800 mg/day. It is said that children who are growing need two to four times as much calcium per unit of body weight than that of what adults require (1). With the introduction of juice into school lunch, calcium intake has rapidly decreased, making it a problem to acquire enough calcium for the body (7).

Insufficient iron causes anemia, negative results of anemia include poor mental and motor scores as well as irreversible developmental effects (1). Recommended daily dietary allowance is 10 mg/day. Foods suggested are easily chewable heme sources such as ground beef and nonheme sources with supplemental vitamin C for increased absorption. Zinc deficiency causes growth retardation, hypogeusia, and diarrhea. Recommended daily dietary allowance is 10 mg/day. Sources include meats and grains.

Establishing Healthy Eating Patterns

It has been found that children who "attached a high level of importance to good nutrition were more than twice as likely to report that they ate the right foods as those children who rated food as less important" (7). Also in the Kellogg Children's Nutrition Survey they found that only one in three third graders to high school seniors self-reported eating the right kinds of foods (7). Therefore in establishing healthy eating patterns, interventions need to take place while children are still young.

Other Concerns

On the opposite side of healthy eating or even obesity, eating disorders in children are becoming more prevalent. "Problem eating behaviors such as pickiness, food avoidance, eating too little, and eating too slowly" in early, middle and late childhood can all be factors of disordered eating or full eating disorders later in adolescence and adulthood (8). Studies have shown that girls as young as 5 years old are stating their fear of gaining excess weight (5). Studies have also indicated that as many as 50% of third grade girls already have attempted dieting (5). If a child decides to diet they are not usually supervised by parents, therefore food choices are not educated and food avoidance is more likely. As shown above, this pattern can lead later in life to eating disorders. Also pre-puberty dieting can reduce fat stores needed for growth and maturation during puberty (8).

Applications

Following the food guide pyramid and the Dietary Guidelines for Americans can be invaluable assets to helping children eat healthy. So what role does nutrition-education play in America's children today? In a study done by Kennedy and Powell, 1997, they compared data collected by the U.S. Department of Agriculture from 1986 to 1994 about

consumption patterns in children. What they found was that children spend greater amounts of time outside the house during the daytime and that programs need to be implemented in schools (7). 95% of America's children are enrolled in school; many of those children consume two of the three main meals at school. Likewise this time can be spent teaching children proper nutrition practices (7).

While some eating trends in childhood are becoming problematic there are ways to remedy the situation. First with obesity there is family counseling, eating a low-fat diet and physical exercise. To obtain adequate sources of major minerals, children must consume a healthy diet that is high in calcium, iron and zinc. Overall when establishing healthy eating patterns in children, they need to be taught in school and while they are young.

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Honors Thesis Abstract

Eating Trends in Childhood

Children, during grades kindergarten through fifth or roughly ages 6 through 11 years establish eating patterns that will be with them throughout their entire lives. Many of these patterns can be problematic. Some of these include: overfeeding or obesity, adequacy of major minerals and establishing healthy eating patterns in young children.

In 1999 the results of the National Health and Nutrition Examination Survey (NHANES) using height and weight measurements indicated that 13% of children between the ages of 6-11 years were overweight (1). The implications of this statistic are severe and not easily remedied. The results of obesity in childhood have "serious physical and psychological afflictions, such as respiratory complications, glucose intolerance, cardiovascular disease, social distress, and sometimes even eating disorders" (2). Interventions include family counseling, low-fat diet following the food guide pyramid and physical exercise.

Adequacy of certain major minerals in childhood is a problematic pattern that has been long standing in the United States. The main minerals of inadequacy are calcium, iron and zinc. These minerals are not necessarily correlated with socioeconomic status. They are a major concern throughout the entire U.S. population.

Furthermore establishing healthy eating patterns is key to avoiding any unhealthy eating trends. In the Kellogg Children's Nutrition Survey they found that only one in three third graders to high school seniors self-reported eating the right kinds of foods (3). Therefore in establishing healthy eating patterns, interventions need to take place while children are still young and in school.

We conclude that while some children's eating patterns are problematic, there are means to resolve these trends. They include counseling, family involvement, physical exercise and nutrition education in school at a young age.

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