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Effects of sugar and processed food on school-aged-children's lunch-box

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Abstract

As a result of increased technology after the Industrial Revolution, food production became processed and mass-produced. Processing the food takes away many of the valuable vitamins and minerals, resulting in food that is available to the masses, but lacking in nutrition. Food makers began adding sugar and fat to the food to make it taste better. Also, in today's world, we demand fast food to fit our fast-paced lifestyle. Although such food is convenient, inexpensive, and accessible, it is not healthy for children. The diet of a school-age child directly impacts their future health, including increased obesity, heart disease, and diabetes. It has been shown that an estimated 80 percent of type 2 diabetes could be prevented by a change of diet and exercise (Pollan, 2008). In addition, a link between diet quality and academic performance has been established. Florence, Asbridge, and Veugelers (2008) found that children with overall better quality diets tend to have better cognitive function and academic performance. Now is the time to give our country's children a healthier future.

Keywords: food, processed, fast food, diet, children, lifestyle, school-age child

Introduction

What children eat is often limited by their parents' income. Inexpensive food is often processed, full of nutrients deficient; yet it is also easily accessible. Low-income families are faced with tight budgets and are often forced to choose inexpensive food that is nutritionally deficient over food that is healthy, but more expensive. School children who qualify for free lunch Program obtain approximately one-third of their daily calories. By serving wholesome food, there is an opportunity for children to receive at least one healthy meal a day.

Research Hypothesis

Food makers began adding sugar and fat to the food to make it taste better. Also, in today's world, we demand processed food to fit our fast-paced lifestyle. Although such food is convenient, inexpensive, and accessible, it is not healthy for children. So here we are studying about the above.

Objective of Study

The subjects' overall diet quality was examined first, and then the students' academic performance was measured by taking the Elementary Literacy Assessment, a standardized test [1]. The results demonstrated that students who reported higher diet quality were significantly less likely to fail the literacy assessment. Additionally, the students' consumption of more fruits and vegetables and less fat resulted in students who were less likely to fail the test.

The study's results showed that the "children with normal height/weight ratios had significantly better performance in IQ than those in the obese group, had a wider range of interests, better capacity for social adaptability, and greater speed and dexterity" (p.293) [2]. The impact of student health on school performance has many implications. One way to achieve improvement is to ameliorate the quality of food that our nation's children eat.

The important role food plays in our wellbeing was originally stated by Hippocrates when said, "Let food be thy medicine and medicine be thy food." [3] At that time, the relationship between a proportionate and varied diet and health was being established.

Since national or community development depends largely on the quality of education, an

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understanding of the nature of the relationship between health and education is important for policy planners as well as the masses. It is generally believed that the basis for any true development must commence with the development of human resources. It has been argued that health is an important factor for academic achievement at school and in higher education. Consequently, in the context of universities or colleges, promoting the health and well-being of all members means promoting effective learning. A systematic literature review to examine whether school health programmes improved academic success provided positive evidence for at least some programmes. Chronic malnutrition experienced during early life inhibits growth, retards mental development, and reduces motivation and energy level, causing a reduction of educational attainments and delay in school entry.

There is a correlation between nutrition and cognition as well as psychological behaviour; their relationship has been highly under-researched, but there exist many studies that look at the nutritional benefits of many proteins, vitamins and food substances as they affect learning and brain function. Our schools have the potential to play a vital role in preparing and sustaining our students' potential learning abilities and benefitting their social behaviour by supplying nutritious breakfasts and lunches during school days.

Analysis & Interpretation

While the intake of food is vital for proper performance, many of the widely available and popular foods in schools today are actually hindering children's abilities to learn. Loaded with sugars, caffeine, chemicals, and sodium, many popular menu items are leaving kids tired, unfocused, jittery, and sick—which not only impact students' grades and performance, but also influences their behavior and moods.

Lack of Energy and Focus

According to the Society for Neuroscience, recent studies reveal that diets with high levels of saturated fats actually impair learning and memory. Unfortunately, foods with saturated fats are often the most affordable and widely available in schools. French fries, sugary desserts, cheeseburgers, chicken nuggets, and other cafeteria staples are filling kids with food that actually lower their brain power before sending them back to class.

One of the theories that explain the link between saturated fats and brain power is the effects of glucose and sugars in the higher-fat foods. Essentially, glucose comes from carbohydrates, and while glucose is vital for energy, foods that are too high in glucose actually cause a body's energy levels to drop. As glucose is ingested, the body releases insulin in order to process the newly acquired foods. Normally, after a healthy meal, glucose levels should rise slightly, and a body should feel energized after taking in nutrition.

Today, however, children and adults with high-glucose diets experience a post-food "crash," wherein the glucose intake is so high that the body begins to shut down as it processes all of the food. Popular meals in cafeterias for kids often include white and refined breads, fried foods, sugary sweets, and sodas; all of these meal options cause an incredible drop in energy, leading to a terrible drop in energy, focus, and successful mental performance. A regular diet of high glucose can result in damage to kidneys, eyes, blood vessels, and nerves. And while these side effects are serious, high glucose also causes irritability, lethargy, and a lack of focus.

Food Deprivation and Malnutrition

Today, it is estimated that one out of three kids is overweight; surprisingly, both overweight and underweight kids may be deemed as malnourished. A lack of proper food intake is known as malnutrition or malnourishment, and it does not only imply that there is a lack of food; moreover, malnutrition signifies a lack of nutrients.

Therefore, while most of the children may be taking in a great deal of calories, they may not be taking in any essential vitamins, nutrients, and minerals. This lack in vitamins and minerals leads to detrimental side-effects. Children with insufficient diets are reported to have more problems with health, academic learning, and psychosocial behavior^[4].

Malnutrition can result in long-term neural issues in the brain, which can impact a child's emotional responses, reactions to stress, learning disabilities, and other medical complications. In a specific study, researchers said that "Malnourished children were found to have delays in vision, fine motors skills, language skills and personal-social skills." Recently, researchers also discovered that 1/3 of surveyed adolescents actually reported poor food habits, chronic illnesses, and lower school achievements. While foods are often readily available for kids, the foods are actually inhibiting their development. Not only are unhealthy foods proven to impact academia, but research also proves that a poor diet also impacts a child's attitude and behavior, both in and outside of school^[5].

A Plan to Improve - Research for Lunch Programs

With widespread concern about student performance and health, an initiative called "The Healthy Schools Program" is being incorporated into both public and private schools across the country. The program establishes concrete actions to create healthier school environments by examining systems, policy, school meals, health education, and school programs. With studied standards and incredible support, "The criteria have been through a scientific review process led by experts at the American Heart Association and the Healthy Schools Program Expert Panel comprised of professionals from numerous national health and education organizations."^[6]

According to the Cleveland Clinic, "...when foods, such as sweets, are used as a reward, children may assume that these foods are better or more valuable than other foods. For example, telling children that they will get dessert if they eat all of their vegetables sends the wrong message about vegetables."^[7]

Ensuring Adequate Nutrition

Instead of filling up on empty calories from sugar, kids need enough space in their tummies for nutritious food that are required for growth and development.

Adults are advised to limit added sugar to less than 10% of their daily calorie needs (which is about 12 teaspoons or 48 grams). Because children eat less food in general, their equivalent limits would be more like 7 to 8 teaspoons or 30 to 35 g per day. "In 2005–2008, the average percent of total daily calories from added sugars was 16% (average intake of 362 calories) for boys and 16% (average intake of 282 calories) for girls aged 2 to 19 years."^[8]

Conclusion

Therefore, it can be tempting to offer kids candy or other sugary treats as a reward or incentive. However, there are better

ways to encourage good behavior. Fostering a healthy relationship with food includes separating emotions and environmental influences from eating decisions. So we can teach children to listen to their internal hunger cues and enjoy balanced meals (including the occasional treat). Excess sugar consumption at a young age has been associated with a higher body mass index (BMI) later in life. Although eating sweets from time to time is unlikely to cause major problems in the short term, it's important to encourage healthy eating habits starting in early childhood. There is a fine balance between being overly restrictive about what the child eats and neglecting to raise healthy future teenagers and adults. High sugar intake raises the risk of obesity and chronic diseases like diabetes, heart disease, and cancer, especially as we get older. Additionally, joint pain, gout, and fatty liver disease are possible complications of excess weight. Establishing nutritious eating habits early on will guide the child toward a healthier lifestyle in the future. Focus on the benefits of nutritious foods, rather than the negative consequences of sugar, to help children develop a positive attitude about eating well.

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