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Crying lunchbox demanding value-added food for academic endeavour

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Abstract

In an educational world filled with failing schools and apathetic students, state boards of education have searched for answers on how to increase test scores and create school systems where all students receive the best education possible. Amongst the plethora of possible solutions, perhaps they should look first at the nutritional substance of what our school-aged children are eating each day as they struggle through a day learning. There is correlation between nutrition and cognition as well as psychosocial behaviour; but there exists many studies that look at the nutritional benefits of many proteins, vitamins and food substances as they affect learning and brain function. Our school have the potential to play a vital role in preparing and sustaining our students' potential learning abilities and benefitting their social behaviours by supplying nutritious breakfast and lunches during school days.

Keywords: Nutritional substance, school-aged children, nutrition, cognition, proteins, vitamins learning, brain function, breakfast, lunches

Introduction

The proper nutrition has a direct effect on student performance and behaviour in school. Much of the literature confirmed that nutrition has a direct effect on neurotransmitters which are important in sending messages from the body to the brain. Specific dietary are shown to have negative effects on this system, many of which are commonplace in school aged children's daily eating. Unfortunately, school breakfast and lunch programs, in many cases, inhibit the body's cognitive and energy potentials by not providing proper nutrition. In studies, cases of socioeconomic status seem to be an indicator of food insufficiency, which is simply the lack of available food to a household. Food insufficiency has been shown to directly affect children's cognitive development. Finally, recommendations are explored and given for ways schools can help improve the nutrition of their food programs, thus taking steps to ensure students are given the energy needed for normal cognitive development and social skills.

Research Hypothesis

The purpose of this research article is to review existing literature about past research that highlighted studies concerning nutrition and its relationship to brain function, cognition, learning and social behaviour.

Analysis & Interpretation

Recent studies have demonstrated that nutrition affects student's thinking skills, behaviour and health, all factors that affect academic performance. Research suggests that diet high in trans and saturated fats can negatively affect learning and memory, nutritional deficiencies early in life can affect also the cognitive development of school-aged children and access to nutrition improves student's cognition, concentration and energy levels ^[1].

Nutrition also indirectly affects school-aged children's performance. Poor nutrition can leave student's susceptible to illness or lead to headaches and stomach aches resulting in school absentee. Access to nutrition that incorporates proteins, carbohydrates and glucose has been shown to improve student's cognition, concentration and energy levels.

In contrasts, nutritional deficiencies (particularly zinc, B vitamins, Omega-3 fatty acids and protein) early in life can affect the cognitive development of school-aged children.

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Studies also suggests that diets high in trans and saturated fats can negatively impact the brain, influencing learning and memory ^[2].

Finally, research has also established a link between nutrition and behaviour. Studies have found that access to nutrition, particularly breakfast, can enhance a student's psychosocial well-being, reduce aggression and school suspensions, and decrease discipline problems.

School provide nutritious food. School Mid-Day meal programs seek to help meet student's nutritional needs. Research suggests that participation in mid-day meal program plays a role in student behaviour, cognition, and academic performance.

Many low-income children are eligible for free Mid-day meal programs, but cannot get to school early enough to participate or avoid the program because of the stigma associated with eating a free breakfast. During the 2009-10 school year, 47 low-income children took part in school Mid-Day Meal programs for every 100 children who ate free or reduced lunch. In addition to lost funds, students who do not participate in school Mid-Day meal are at risk for increased absences, adverse behaviour, reduced concentration, and poor academic performance ^[3].

Better attendance - Several studies, have shown that student attendance improves in school that implement universal-free school Mid-Day Meal programs.

Improved behaviour - Inner-city students participating in a universal-free school Mid-day meal program had fewer behaviour problems six months after the program started. Disciplinary actions also have been shown to decrease in schools that offer a universal-free school Mid-Day Meal program. Children whose parents report they often do not get enough to eat are more likely to have been suspended from school, have seen a psychologist, and have difficulty getting along with other children ^[4].

Improved concentration - A study found that a school Mid-Day Meal program improved concentration and alertness among children. Similarly, children in schools with Mid-Day Meal programs reported having more energy and better attention than those attending schools without Mid-Day Meal programs. An experimental study with 9 through 11 year-old children showed that those who were not served Mid-day meal had slower memory recall.

Better academic performance - Many studies indicate that school Mid-Day Meal programs involve academic performance. Children who do not get sufficient meals are more likely to repeat a grade. Elementary children who participated in a school Mid-Day Meal program did better on standardized tests than those who qualified but did not participate. Similarly, students in a school Mid-Day Meal programs at an inter-city school showed improved math grade six months after the start of the program ^[5].

Increasingly, states and schools are considering different approaches to encourage the consumption of healthy foods and increase students' participation in school meal programs. These approaches encompass public policies (such as the use of memory incentives for involvement in school meal programs) and behavioural economics, which focus on redesigning lunchroom environments to foster healthy eating.

Recent research combines knowledge from the fields of behavioural economics, psychology and food marketing to analyze how people decide what to eat. Researchers conducted an experiment at a local Primary school to test whether making healthier foods more convenient would lead to their increased consumption. The researchers worked with the school to create a convenience line in the lunchroom that served healthier foods. After a 16 week period, the sales of healthier foods rose by 18 percent and the number of grams of unhealthy foods consumed decreased by almost 28 percent. In addition, the amount of healthier foods eaten as a percent of total consumption increased from 33 to 36 percent.

State government has the capacity to offer guidance and resources to schools as they implement new federal policies, seek to provide nutritious food, and create healthier school environments. Non-profit service organizations play a vital role in food distribution, research and advocacy. There are multiple approaches organizations and sectors can employ to influence students' nutrition and promote academic success.

Education lies at the heart of attempts made by governments in developing countries to ensure that their people obtain the basic necessities of life- food, shelter, livelihood and a secured future. In this regard, initiatives such as the Millennium Development Goal two which advocates for Universal Primary Education for All by the year 2015 and the Education for All agendas are targets of most governments. In the past, nutrition was relegated to the background and was rarely considered by policy makers when designing and implementing educational programmes aimed at improving participation and high performance of school children. However, in recent years many countries, development partners and other international organisations now recognise the importance and role of health and nutrition as a key component for the achievement of globally set goals. In this regard, international organisations such as UNESCO, WHO, UNICEF, Education International and the World Bank at the launch of a framework, "Focus Resources on Effective School Health" (FRESH).

Conclusion

So, therefore this article presents a review of the nutritional status of Indian school-age children, the effect of nutritional status on physical performance, the impact of under nutrition and micronutrient deficiencies on physical performance, the currently used physical fitness tests and the available limited data on physical fitness status of Indian children. It is hoped that universal access to fitness testing programmes and interventions to improve fitness in those who are identified as having sub-optimal fitness will be made available and accessible for school age children in India; if this were done, it might be possible for the country to achieve the nutrition and health goals set in the National Health Policy and to belie the dire projections that India will rank as the country with highest numbers of diabetics and hypertension persons in the world.

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