Health Promotion and Nutrition: Benefits May Include Improving School Performance

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This paper examines health promotion and the benefits of proper nutrition for school children. Nutrition is important for growth and development but articles researched also indicate it may improve school performance. The benefits of health promotion for the community are discussed as well. Parents send their children to school, schools have a responsibly to provide children with healthy food choices. Children who do not receive adequate nutrition may suffer chronic problems later in life. These problems then become concerns of healthcare workers. Focusing on health promotion for young people will help to establish future healthy communities.
Communities are made up of adults and children. To have a healthy community, adults and children need to be healthy. Health is not merely the absence of disease. When looking at a person’s health, it encompasses physical health, mental health, social health and spiritual health. A person’s overall physical health can be determined by their physical fitness, sleep levels and their nutritional fitness to name a few. (Pender, Murdaugh, & Parsons, 2006). Imbalance with any of these can result in poor physical health. This paper will explore promoting health with nutrition and the benefits it provides for children. Requirements for nutrition will be centered on school-age children ages 5-13 years. Research for this paper was completed with database searches of Pub Med, CINAHL, CDC/ U.S. Department of Health and Human Services/Department of Agriculture. Research has shown that poor eating habits are often developed during childhood. (Pender et al, 2006). Children are at school one-third of the day. Parents rely on other caregivers, such as a child’s school, to provide children with proper nutrition. (Gidding et al, 2006). Providing children with healthy lifestyle choices will help them to make healthy choices as adults. Good nutrition for children may have other benefits as well. Studies researched have shown that adequate nutrition may also improve a child’s school performance.

Health Promotion

Health Promotion is defined as behavior motivated by the desire to increase well-being and reach a persons’ health potential. (Pender, et al, 2006). “Probably the purest form of motivation for health promotion exists in childhood through young adulthood when energy, vitality, and vigor are important to attain, but the threat of chronic illness seems remote” (2006, pg 7). Obesity in our children is reaching epidemic status. (Gidding et al, 2006). Although opinions
vary as to the cause of obesity one variable remains constant. High caloric intake couple with decreased physical activity is a leading factor in why our children are obese. (Florence, et al, 2008).

Nutrition supplied in proper calories and from the basic food groups are what children require. Children are notoriously picky eaters, but parents and caregivers cannot give up trying. Knowing what diet, including calorie, fat, protein, carbohydrates, and recommended vitamin amounts for children is a good place to start when providing them with daily nutrition.

_Adequate Nutrition_

Nutrition is defined as

“Nourishment, or the sum of the processes involved in the taking in of nutrients and their assimilation and use for proper body functioning and maintenance of health. The successive stages include ingestion, digestion, absorption, and excretion. The study of food and drink as related to the growth and maintenance of living organisms.” (Mosby’s Dictionary, 1998).

Caloric intake will vary from child to child. One must take into account height and weight. Pediatricians are a great resource for parents and caregivers. Pediatricians can calculate a child’s body mass index (BMI) and determine if they are overweight or underweight by using a growth chart. Once a determination is made, a pediatrician can recommend a diet and an explanation of the food groups and what is required for a child depending on age and BMI. (Gidding et al, 2006). If a child is overweight, the pediatrician may suggest seeing a nutritionist for diet counseling. Most doctors and health care providers will give you a food pyramid (Figure 1); it contains serving amounts for the recommended food groups. Knowing this information can help parents and caregivers plan daily meals. Having this information gives parents an idea of how
many fruits, vegetables, meats, and breads a child should have in day. Getting children to eat these foods is another issue. Adult’s role modeling is one suggestion. (Gidding et al, 2006). If parents and caregivers can’t get picky eaters to eat foods from all these groups, you may need to consult with a pediatrician for lab work. A child may be deficient in vitamins or has low iron levels. Iron deficiency anemia can affect children’s growth and ability to learn (Gidding, et. al, 2006). If a child is lacking in certain vitamins, taking a daily vitamin is an option. Children’s vitamins are flavored, and getting a child to take these is not usually an issue.

Benefits of Adequate Nutrition

Starting children down the path of making good food choices has many benefits. Healthy eating is associated with reduced risk for many diseases, including the three leading causes of death: heart disease, cancer, and stroke. (CDC, U.S. Department of Health and Human Services, 2001). Healthy eating in childhood and adolescence is important for proper growth and development and can prevent health problems such as obesity, dental caries, and iron deficiency anemia. (2001).

“Most young people are not following the recommendations set forth in the Dietary Guidelines for Americans: of U.S. youth aged 6-19, 67% exceed dietary guidelines recommendations for fat intake, and 72% exceed recommendations for saturated fat intake” (CDC, U.S. Department of Agriculture, 1998).

If parents and caregivers provide children with good nutrition they may be offering more than prevention of obesity. They may also be helping children to do better in school.

Improving school performance
Studies have shown that children that consume a well balanced diet have better grades, less aggressive behavior and better test scores. (Fu, Cheng, & Pan, 2007). Researchers in a study found that students with decreased overall diet quality were significantly more likely to perform poorly on the school literacy assessment. (Florence, et al, 2008). Their study involved 5200 grade 5 students in Canada. The assessment they used was a provincial standardized literacy assessment. To measure diet quality, a diet quality index-international was used (DQI-I). The DQI-I was chosen because in encompasses adequacy, variety, balance, and moderation as components of diet quality and provides a score for each."(2008). Researchers also used a Harvard Youth/Adolescent Food Frequency Questionnaire (YAQ). These tools determined the children’s overall diet quality. The Elementary Literacy Assessment tool was used to determine academic performance. This test is a standardized test administered by the Nova Scotia Department of Education. A multilevel regression method was used to examine the relationship with diet quality and academic performance, adjusting for any gender, socioeconomic differences of parents, and residential neighborhoods. The results did conclude that healthy food choices did improve academic performance. (2008).

In another study, the affects of providing a universally free (UF) breakfast program was used to determine improvement in psychosocial and academic functioning. This was a smaller study, in which researchers used interview data before and after the program was in place. The study used both cross-sectional and longitudinal data. Methods used were questionnaires completed by children and parents. These included a Children’s Depression Inventory questionnaire and a Pediatric Symptom Checklist, completed by parent. Teacher ratings of behavior and grades were also used before and after the program were implemented. The results showed that students who participated in the program had an overall improvement in math, attendance and punctuality.
(Murphy, et. al, 2009). Researchers of this study listed their limitations in this study, citing this was a not a randomized, controlled study.

Two other articles researched showed the positive correlation between poor nutrition and poor school performance. In one study, food-insufficient children had significantly lower grades in math and were more likely to repeat a grade. (Alaimo, Olson, & Frongillo, 2001). Food insufficiency was defined as an inadequate amount of food due to lack of money or resources. (2001). The researchers used the Third National Health and Nutrition Examination Survey (NHANES111), which is completed per parent and child interview. School performance was measured with the Wechsler Intelligence Scale for Children-Revised and Wide Range Achievement Test-Revised. The researchers thought this study was limited because it excluded homeless children and the NHANES 111 didn’t allow for the association between the cross-sectional data and the development of the children. (2001). Another study of elementary school children, unfavorable performance was more likely with children who ate sweets and fried foods. (Fu, et. al, 2007). The researchers of this study thought it was limited because the sample was small and questionnaire had potential to be biased. (2007).

Discussion

Many schools have started to realize the importance of providing students with healthy food choices/programs. The National Association of State Boards of Education (NASBE) has written: “Health and success in school are interrelated.” Schools along with state and local governments have taken steps to provide children with adequate nutrition and healthy food choices. (Gidding et al, 2006). Children are the future of our communities. Healthcare workers should be concerned because unhealthy children can grow up to be unhealthy adults. These adults will
have health issues, like obesity, heart disease, and diabetes; further straining an already burdened health care system. (2006). Healthcare workers should also care about overall school performance. Children with poor performance are more likely to suffer low self-esteem and drop out of school. (Alaimo et al, 2001). Dropping out of school may lead to low paying jobs with no health insurance or no job at all. Both of these consequences will become the problem of healthcare workers and the whole community. Everyone in a community should be concerned. The parents, the schools and healthcare workers all working together can make a difference. Healthy people are a start to making healthy communities.

Conclusion

Of all articles researched, there was no negative points to be found when it came to providing children with adequate nutrition. Negative outcomes only occurred when not providing good nutrition. Behavior in children is much easier to change because habits haven’t completed formed yet. Substituting healthy behaviors is much easier for children. Once children have reached adulthood, and patterns of unhealthy eating are formed, and it is much harder to change. Having our children excel in school seems to be another benefit of healthy eating. As a community, it is all our responsibility to make sure our children are receiving adequate nutrition every day.
References


The Food Guide Pyramid was developed by the U.S. Department of Agriculture and the U.S. Department of Health and Human Services.
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