

INCORPORATING NUTRITION EDUCATION INTO MINNEAPOLIS SCHOOLS

ANGELA GUENTHER, MARC UY, REGINA MARINO,
RACHEL WIRTHLIN

Introduction

Previous studies have shown that nutrition education in the classroom provides numerous benefits to children's health outcomes and academic performance:

- Reduced BMI and waist circumference measurements [1]
- Increased healthy eating behaviors [2-4]
- Improved standardized test scores [5]

Nutrition education should become an integral part of a normal school day for elementary aged kids and should entail discussion, education, and activities that promote increased knowledge of nutrition and expanded healthy options at home and at school. This policy brief will elaborate on the benefits of nutrition education and review current nutrition education practices in Minneapolis schools. In addition, this brief will provide suggestions for integrating nutrition education into the existing curriculum in Minneapolis schools.



Why is Nutrition Education Important?

Improvements in Students' Health

Elementary schools are an environment where young people spend many hours of their day. As a result, implementing nutrition education in this environment is a convenient and strategic way of positively influencing children's nutrition knowledge and eating behaviors [2]. Providing specific nutrition education has been shown to have multiple benefits in studies that have been done across the United States:

- Increased likelihood of children creating healthy habits at a young age [4].
- Decreased risk of obesity among elementary students who have participated in nutrition education [1]
- Improved cognitive development and a potential to decrease behavioral outbursts in an educational setting [5]
- Increased nutrition knowledge and self-efficacy as well as decreased BMI and waist circumference amongst elementary students [1-4]

Benefits of Nutrition Education

Students: Improved physical health and academic achievement

Parents: Kids more interested in healthy foods at home

School: Improved standardized test scores

School Board/Local Government: Increased funding to local schools from state and federal governments

Benefits at Home

By encouraging children to engage in healthy behaviors, the stage is being set for them to have better health outcomes later in life.

The benefits of nutrition education in the classroom also carry over into students' homes.

- Parents of students who participated in a nutrition cooking intervention noted an expansion in family conversations about healthy food and an increase in how often their children helped prepare dinner [3].
- As a consequence of nutrition education, there was an increase in the importance parents placed on sharing a family meal together at home [3].

Improved Academic Performance

In addition to enhancing students' physical health outcomes and interest in healthy foods at home, proper nutrition may improve students' academic performance in the classroom.

- One study examined the academic performance of children in the 5th and 6th grade, and researchers discovered students who had healthier habits were significantly more likely to meet academic test score targets [5].
 - With improved test scores, schools can obtain more funding from the state government, which can be used to supply and maintain classroom equipment needed to educate the next generation of students.

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- Furthermore, previous studies exhibited an association between lower math and reading scores with high levels of fast food consumption amongst fifth graders [6].

Not only is nutrition education necessary to build a base of healthy lifestyle choices for children to lead healthy, happy, and productive lives but it is also an important part of helping the child perform to their best ability academically. Combined, the results of nutrition education increase quality of life for the child and also improve test scores for the child and in turn increase school funding from the state and federal governments, improving the quality of local schools.

Current Nutrition Education in the Minneapolis School District

Current nutrition education curriculum in the Minneapolis school district is minimal and currently does not provide set guidelines on how to teach nutrition in elementary schools [7]. The curriculum is broken into two groups for elementary school aged children: Pre-K through Second grade, and Third through Fifth grade.

- In Pre-K through Second grade, it is suggested that students be able to define nutrition, identify the role food plays in health, identify food groups, and recognize healthy snacks.
- For Third through Fifth grade, the recommendations for nutrition education include listing foods from food groups, identify servings, effects of caloric intake, and safe food handling [7].

While these nutrition education standards outline nutrition-related learning objectives, the existing curriculum does not provide any guidance in how these topics should be taught and presented to the students. There are multiple ways that nutrition education can be taught in order to meet these objectives.



How to Implement Nutrition Education

Adding 30 minutes per week of nutrition education into the schedules of elementary-aged children can have many positive effects on health and prosocial behaviors. In each educational option, the nutrition concepts presented to the students must be age appropriate and relevant to the students' daily lives and experiences. Teachers must tailor the information taught to each class depending on different behavioral, social, and cultural factors that each group or class may face [8]. The different options of nutrition education differ in how the information is presented to the children but each delivery option must reach at least 30 minutes each week. The three nutrition education delivery options are:

1. Incorporate 30 minutes of nutrition education per week into the existing physical education curriculum.

This option does not specify the amount of time each P.E. session will be put towards nutrition education, as long as it reaches 30 minutes each week. The specific implementation of the nutrition education will be at the pace or preference of the instructor(s) involved.

EXAMPLES:

- Plant and help to maintain school garden
- Relay race using fruits and vegetables
- GoNoodle Video (Hokey Pokey Dance with fruits and vegetables)

2. Integrate 30 minutes of nutrition education each week with other school subjects as the staff and instructors see fit.

Nutrition education should be integrated into different topics such as science, biology, math, etc. When including nutrition education into existing class subjects, there should be a balance between the existing class subject and nutrition education so that the student is able to understand that he/she is learning about nutrition and healthy lifestyle choices regarding food and portion sizes in addition to the other subject material.

EXAMPLES:

- Schedule a weekly nutrition moment where each student researches a nutrition issue that can lead to a 15 minute discussion about that nutrition issue.
- Use healthy and simple recipes for kids to learn how to convert fractions
- Incorporate food growth into science classes
- Story time in the classroom about fruits and vegetables
- Have students draw a picture of the fruits or vegetables they have at home and present it to their class.

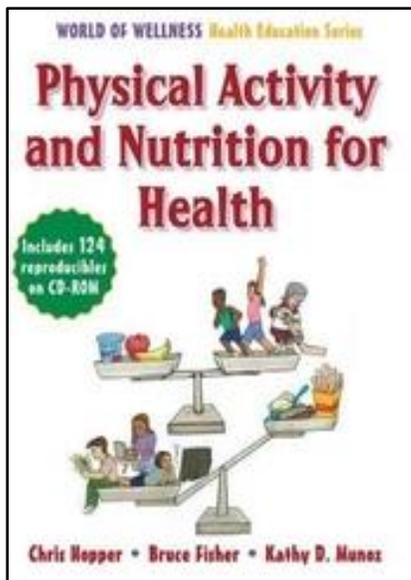
3. Use modules of pre-constructed nutrition education curriculum at the beginning or end of the school day to reach the recommended 30 minutes of nutrition education a week.

This will require a set amount of time to be set aside to deliver the lesson(s). The amount of time and frequency of the lesson(s) is dependent on the instructor staff; however, the materials used in each lesson must be a pre-existing evidence-based program or module.

EXAMPLE:

“Physical Activity and Nutrition for Health” by Chris Hopper, Bruce Fisher, and Kathy Munoz is a combined book and CD-ROM that helps promote fitness and nutrition through

integrating fitness and nutrition concepts as part of a healthy lifestyle. Lesson material includes videos, family activities, worksheets, and exercise/food cards in attempt to “offer practical ideas for building student health physically, emotionally and cognitively” [9].



By using a pre-constructed model of education, the information presented to the students is consistent and the lessons require little extra work by the instructor. This allows for easy implementation into the school day with an effective mode of delivery.

Limitations of Nutrition Education

- Though it is important to build a base knowledge of healthy nutritional foods and behaviors, there have been some school nutrition programs that have not proven to be effective in decreasing risks of childhood obesity and other nutrition-related health disorders.
- Learning from the limitations and failures of other programs is an important tool to help instructors customize their nutrition education delivery to each class while keeping these factors in mind. The first step in tailoring the lessons to each group has been taken through the three delivery options listed above. It is the responsibility of each institution to use the program that best fit their students.
- The required 30 minutes of nutrition education each week allows the students to have enough time and experience with the materials to help integrate these skills into

Some school-based prevention programs were not effective because they did not take into consideration behavioral, social, and cultural aspects that influence child nutrition. Other programs failed because they did not spend enough time on the nutrition education in the classroom

(What Makes Nutrition Education Programs Effective).

everyday life. Further molding of the nutrition education by the instructor allows each child to learn in ways that work best for each individual and in turn will produce more positive results than the previous attempts at nutrition education.

Final Thoughts

Nutrition education in the classroom may successfully improve students' health outcomes and academic performance, resulting in better standardized test scores and subsequently increased funding from the state and federal governments to local schools. While some nutrition education interventions have had limited success, this policy provides a variety of options for teaching and incorporating nutrition education into the school curriculum as it best suits students' educational needs and teachers' weekly lesson plans. In conclusion, setting aside time each week for nutrition education can benefit both students and schools on multiple levels.

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