



Increased Water Consumption and Quality of Food Policies for Schools

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Introduction

Schools can help lobby for change and establish policies to target the childhood obesity epidemic sweeping across the nation: “More than 12 million U.S. children are obese – one out of every six children” (The State of Obesity 2017: Better Policies for a Healthier America, 2017, para. 3). While school districts across the country have policies that adhere to the regulations of the Healthy Hunger-Free Kids Act of 2010, the quality and options of food have been significantly impacted. For example, as part of the act the sodium threshold is so low that the requirements are unrealistic and fall well below standards found at hospitals and other institutions that provide a low-sodium diet. Murphey (2015) explained, Consider that in France, where the childhood obesity rate is the lowest in the Western world, a typical four-

course school lunch (cucumber salad with vinaigrette, salmon lasagna with spinach, fondue with baguette for dipping and fruit compote for dessert) would probably not pass muster under the Healthy, Hunger-Free Kids Act, because of the refined grains fat, salt, and calories. (para. 5) When looking at policies that target childhood obesity, drinking water, healthy eating, nutrition standards, and quality of food are prime areas that should be considered. While all 50 states have a healthy eating policy, 24 states including South Dakota have zero regulations regarding dietary guidelines and nutrition standards for meals and snacks served in schools. Only eight states do not promote the benefits of water consumption, and South Dakota is among them (The State of Obesity 2017: Better Policies for a Healthier America, 2017).

Executive Summary

In a state that ranks 23rd in childhood obesity, 28th in adult obesity, and has an obesity trend that continues to climb, South Dakota does not have required state wellness policies addressing consumption of water, nutrition standards, or quality of foods (The State of Obesity 2017: Better Policies for a Healthier America, 2017). Specific language, requirements, and strategies need to be established to address these areas that are lacking, and an emphasis and awareness should be placed on an overall healthier lifestyle specifically targeting increased water consumption, nutrition standards, and quality of food options in schools. Leaders in education have the responsibility to help educate the whole child, which includes outlining the dangers and potential side effects of childhood obesity along with providing strategies, support, and education in nutrition and healthy living.

The requirements for increased water consumption and quality of food need to be considered and implemented throughout the schools in South Dakota. 68% of school districts nationwide have no policy regarding the promotion of healthy food choices and less than 1% of school districts nationwide recommend that free drinking water be available throughout the school campuses (Strategies to Improve Marketing and Promotion of Foods and Beverages at School). Water consumption has many mental and physical health benefits that could positively impact students' health and academic performance. From enhancing a child's metabolic rate to an increase in cognitive function, water consumption is a key factor. Additional benefits of water include reducing the intake of sugar-based beverages and maintaining hydration, which helps to reduce obesity in children (Kenney, Gortmaker, Cohen, Rimm, & Cradock, 2016). While the United States Department of Agriculture (USDA) requires that schools have water available during meals, more can be done to promote the consumption of water as a health benefit (Centers for Disease Control & Prevention & Bridging the Gap Research Program, 2014). Nutrition can be influenced by what students are exposed to. Healthy choices at school often compete with outside funding and marketing as many products sponsored or promoted on campuses do not support a healthier lifestyle. As highlighted in Strategies to Improve Marketing and Promotion of Foods and Beverages at School (2014), food and beverage marketing often appears throughout schools in the form of posters, vending machine fronts, in-school television advertisements, school newspapers, textbook covers, sports equipment, and scoreboards. Many foods marketed in schools are of poor nutritional quality. The Centers for Disease Control and Prevention, Institute of Medicine,

and American Academy of Pediatrics recommend that school districts implement policies and practices to promote foods and beverages that support healthful diets" (para. 1). A lack of water consumption and poor food quality are two key aspects plaguing the school systems and contributing to the childhood obesity rate.

Aspect 1: Increased Water Consumption

Policies are needed to make drinking water more available within schools and to emphasize its importance. Unfortunately, most schools currently have policies in place that discourage the consumption of water as a countermeasure to deal with other issues the school may face. Reusable water bottles or the consumption of water during classes is often prohibited in schools to prevent students from lacing their drinks with alcohol or other substances. There are also concerns that students will need to use the restroom more, which disrupts the class and the potential for water spills is greater. "According to a 2007 to 2008 national study of school wellness policies, only 13% of students were enrolled in a district with a policy that included language regarding free drinking water availability throughout the school day" (Patel & Hampton, 2011, para. 19). Because students spend much of their day at school, districts can capitalize on this opportunity to help students increase their water intake resulting in maintaining a healthier lifestyle and improving their ability to learn. According to Patel et al. (2014), many students may begin their school day in a state of dehydration (para. 8).

Without regulations specific to water access and consumption during the school day, the promotion of adequate water intake will be futile. Having water available during school meals is mandated through the Healthy Hunger-Free Kids Act of 2010, however,

because of funding rules water is not considered a reimbursable meal item. While bottled water is available through the cafeteria, vending machines, or school stores the cost is placed directly on the students which may diminish students from getting enough water during the day (Kenney, Gortmaker, Cohen, Rimm, & Cradock, 2016).

Implementing drinking water testing programs can help aid schools in providing free quality water to students. In a study, Patel et al. (2014) found students did not utilize drinking water from fountains because of water safety concerns, the appeal of the drinking fountain, location or design which does not accommodate the ability to fill a water bottle (para. 24). Schools can also evaluate their infrastructure to determine if pipes are up to date and to ensure enough drinking fountains are working properly and located in convenient places throughout the campus.

Community education initiated by the school can begin to attack childhood obesity that is plaguing the nation. According to Patel and Hampton (2011), a Soda-Free Campaign was hosted in California, providing activity worksheets and books to schools. It was determined this approach had a positive impact and at least 50% of those who were exposed to the campaign materials were drinking more water (para. 45). Other strategies to promote drinking more water have been implemented in various school districts across the country. Chilled water dispensers in the New York City Public Schools were placed in the lunch line showing an increase in water consumption. Promotional signage was used in the Boston Public Schools which helped to increase water intake among students. Los Angeles middle schools used a combination of promotional signage around water dispensers to help increase water consumption across campus

(Kenney, Gortmaker, Cohen, Rimm, & Cradock, 2016). Wellness policies that address water consumption are a start to combating obesity among children. "Strong state policies play a key role in improving access to healthy food and increasing physical activity, which are essential for promoting a healthy weight" (The State of Obesity 2017: Better Policies for a Healthier America, 2017, para. 5).

Aspect 2: Quality of Food

It is counterproductive to tell students to make healthier choices when food options are sub-par. "Such a disconnect between what students learn about food in the classroom and what we serve in the lunchroom undermines nutritional instruction" (Kuhner, 2012, para. 4). More whole grains, fruits, and vegetables became part of the regulations for the Healthy, Hunger-Free Kids Act, however, these regulations came with consequences as it forced food manufacturers to alter their products, often increasing sugar and other less healthy ingredients. "For example, when the Schwan Food Co. of Marshall, Minn., reformulated the pizza it makes for schools to increase whole grains, it added sugar, a comparison of the printed nutrition facts for the two products shows" (Shah, 2011, para. 17).

Because of the mandates related to the Healthy, Hunger-Free Kids Act, which affects overall taste and options, there is much more food waste in schools. Although students may be required to have healthier items on their lunch tray before they are allowed to leave the cafeteria, it does not mean students are consuming them. To counter these issues, many schools have found creative ways to address the sub-par food being served in their cafeteria. One Ohio school installed stir-fry stations to increase vegetable consumption and allow students to customize their meals. Spices were also made available to counter the

bland whole grain and low salt items (Murphy, 2015, para. 7). Some schools have chosen to participate in farm-to-school programs as a way to provide quality options to students which are fresh and locally produced. The 2022 United States Department of Agriculture found 76.8% of school districts across the country participated in farm-to-school programs and only 44.4% of school districts in South Dakota participated in these programs. That is only 59 South Dakotan school districts bringing in quality fresh food options from local growers (United States Department of Agriculture: The Farm to School Census, 2022). Oftentimes, nutrition education and hands-on activities such as field trips to the local farms, school gardens, or science lessons can be associated with farm-to-school programs. These types of activities can become a cross-curricular approach that can positively influence students to make better and healthier choices, which ultimately leads to reduced food waste at lunchtime.

Although some schools are trying to positively address the quality of food in their cafeterias, considerations have been brought to Congress in hopes the mandates on low sodium and whole grain food items will become less strict. The school environment is an important place to help educate students on healthy living and positively influence good eating habits. Providing a nutritionally sound school environment includes access to healthy, appealing, and quality foods that are made available during school meals, in vending machines, in school stores, in concession stands, and during fundraisers. Another part of creating a healthy environment is sending a consistent message about healthy eating and how healthy choices improve students' physical and mental health (Strategies for Creating Supportive School Nutrition Environments, 2014).

Conclusion

Researchers have demonstrated children that who have a healthier lifestyle do better in school. A student's weight impacts their performance in school whether it is related to their self-esteem or attendance. Students who are overweight often have lower self-esteem and are more likely to miss school due to health issues that negatively impact their academic performance. A 2007 study found students who were overweight had a 20% higher absenteeism rate. Other reports indicate obese students tend to score lower on standardized tests and they are less likely to go to college than their peers who are at a healthy weight (Richmond, 2013).

Forty-three states have regulations to make drinking water available to children, however, South Dakota is not one of those states (The State of Obesity 2017: Better Policies for a Healthier America, 2017). Promotion and marketing strategies for safe drinking water along with the health benefits of water may help increase student's overall daily water consumption.

There is an evident correlation between water consumption and improved health, which directly impacts student performance and the battle against obesity. In South Dakota, 18.9% of children ranging between 10-17 years of age were found to be obese. These 2020-2021 statistics place South Dakota 38th in childhood obesity (The State of Obesity: Better Policies for a Healthier America, 2023).

In addition to enhanced water consumption among students, food quality poses an equal concern in the childhood obesity dilemma and overall school nutrition. With the Healthy, Hunger-Free Kids Act, students across America are required to have at least one vegetable item and one fruit item on their lunch

tray before they can exit the cafeteria. To meet the federal guidelines of this act, most of the food is reformulated, which in most cases is not any healthier. The result of these mandates is low-quality food, increased food waste, and students choosing to bring in less nutritious food items from home (Murphy, 2015). Food quality has an impact on a student's performance in school and their ability to maintain a healthy lifestyle.

While the restrictions of the Healthy, Hunger-Free Kids Act pose many challenges, there are opportunities schools can try and capitalize on. Some school districts across the country are working with local growers to establish farm-to-school programs and/or provide more selections to promote student choice. Ultimately policies and regulations at the national and state level need to be revised to help schools establish a nutritionally sound and supportive environment.

Implication and Recommendations

If school wellness programs do not address water consumption and better-quality food there is a strong likelihood the obesity rate will continue to rise, student performance and behavior will decline, and an overall negative impact on one's healthy lifestyle will occur. Prevention and education starting in early childhood can help instill healthy habits and reverse negative trends later in life. "Early childhood education (ECE) settings can encourage a healthy diet, physical activity, limits on screen time and other best practices to help young children adopt healthy habits early in life" (The State of Obesity 2017: Better Policies for a Healthier America, 2017, para. 2).

The State of South Dakota should work to revise policies that specifically address the consumption of water and target quality foods in school. Skill-based nutrition education classes and/or seminars could be held

regularly to help educate the community. Evening in-services could be held for parents and students to help teach them how to create and cook a healthy well-balanced meal along with providing recipe ideas. Providing different learning opportunities for families could help support the students in the home and while they are at school, which helps reinforce the importance of living well. Promotional materials, similar to the Soda-Free Campaign in California, could be provided to schools to help educate students and parents on the importance of water consumption and how to maintain a healthy lifestyle. Public service advertisements could be included in newsletters and in other communication pieces such as emails or announcements to help inform the school community. Professional development opportunities for staff can be provided to help educate staff and encourage them to model healthy behaviors. In addition to addressing water consumption and nutritional standards through policy, school districts should ensure free water is provided during lunch and work to upgrade water fountains within the schools. Water fountains should be located in accessible locations and be upgraded to serve as a filling station.

Along with targeting increased water consumption, Healthy, Hunger-Free Kids Act policies and regulations need to be revised so nutritional standards are more realistic. This would allow schools and students to have access to better quality food and diverse options that are healthy. Taste tests could be conducted regularly by students, staff, and parents to ensure consistency with food quality. A school health committee could be established to help identify and address issues, generate strategies to improve school meals, along with reviewing policies and trends. Incentives could be provided to school districts that choose to participate in farm-to-school

programs which would provide fresh high-quality options to students. Positive benefits of farm-to-school programs are greater community support for school meals, lower school meal costs, increased participation in school meals, and reduced food waste (United States Department of Agriculture: The Farm to School Census, 2022). There are grants and funding sources available to schools to help offset this type of cost. The United States Department of Agriculture: The Farm to School Census (2022) explains that through its Farm to School Grant Program USDA offers grants to help school and other eligible entities establish or expand farm to school programs. A USDA report shows that the grants alone have helped at least 12,300 school improve nutritious meal options made with local ingredients for 6.9 million students, while expanding market opportunities for family farmers and ranchers in their communities. (para. 7)

School cafeterias should be encouraged to cook from scratch which would help meet the vast dietary needs of students and utilize fresher options. Every child in the State of South Dakota should have access to high-quality food and clean quality water sources at school.

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