

**Shondell DeVelde** 

# **Promoting Nutrition Education**

## in Seventh-day Adventist Schools

thy food."

The bones, muscles, nerves, organs, and tissues of our bodies are built up and repaired from the food we eat. Each organ of the body requires sustenance from good nutrition, which nourishes the blood and sustains life. Choosing the right foods, however, can be a challenge. Many people rely on appetite, but this is not a safe guide. Poor eating habits have caused the appetite to become distorted. Untrained appetite habitually demands food that can impair health and cause weakness instead of strength. The ability to choose the right foods is also influenced by other factors such as food allergies and the availability and cost of healthful foods.

et food be thy medicine, and let medicine be

Educators must carefully guide their students' food preferences and eating habits away from society's unhealthful trends. Previously, chronic diseases such as obesity and type 2 diabetes were associated with older

adults. However, this trajectory is changing as more young people are diagnosed with these illnesses. Globally, unhealthful eating and sedentary lifestyles are two major causes of the high prevalence of chronic diseases among the young.<sup>3</sup> God's ideal is that we prosper and be in good health. "Beloved, I pray that you may prosper in all things and be in health, just as your soul prospers" (3 John 1:2, NKJV).<sup>4</sup>

School-based nutrition education can help children and young adults experience optimal health and wellbeing. When students receive appropriate food knowledge, learn how to make healthful food choices, and access healthful foods at school and home, this will propel them to practice appropriate dietary behaviors. While younger students may not have much

choice about the food cooked at home, what they learn at school about healthful choices can help them make better choices. Through interaction and collaboration, the home, school, and church can help teach the importance of healthful living, but this process requires commitment and consistent implementation.

#### **Agencies of Adventist Education**

Children's first and most significant educational center is the home, with parents as the most influential teachers. Parents are responsible for reflecting God's character to their children, and the entire familial setting shapes children's values, attitudes, and worldviews. The church, the school, and other societal educational agencies thrive when they build on and supplement the work of the home. The church also plays a role in supporting the home and school in facilitating nutrition education. Nutrition and health programs offered by Pathfinder clubs, Sabbath school, Vacation Bible School, and other organ-



izations can help reinforce food and nutrition concepts. Even though school-based nutrition education is designed to help children make healthful food choices and practice appropriate dietary habits, nutrition education needs the support of the home, church, and community to have the desired outcome in the lives of children.

Cultural, social, and environmental interactions and practices, the accessibility of food and physical resources, and marketing practices by the food industry can either positively or negatively affect people's ability to make healthy food choices and practice healthful eating.<sup>6</sup> The fact that for a large portion of the year, many children spend most of their waking hours at school<sup>7</sup> means that schools must play a significant role in facilitating effective evidence-based nutrition education, which includes providing healthful food in the school cafeteria

#### **Interview With Two Prospective Nutrition Students**

In 2021, I surveyed students in one of my classes. From a class of 15 9th-grade students at Grand Bahama Academy, a Seventh-day Adventist school in Freeport, Bahamas, only two students chose food and nutrition as one of their electives. I became curious about why these two students chose food and nutrition as an elective when their classmates chose either physics or commerce as electives. Table 1 on page 41 shows the questions and student responses.

Evaluation of the Students' Responses

The two students interviewed were the only Adventist students in the class. They regularly attended church and participated in many church programs that catered to their growth and development. During the interview, it became evident that the students' familiarity with food and nutrition came from influences at home and in their local church.

Although I teach in an Adventist school, most students in my educational setting come from homes without any Adventist presence. Some of these students demonstrate basic knowledge of nutrition principles, but many have much to learn compared to those from Adventist homes. As educators, we should approach situations like these as an outreach opportunity to teach children and young adults about healthful eating and other essential dietary practices. God will bless this effort, and those messages may extend beyond the classroom walls to homes and communities.

#### What Is Nutrition Education?

Education is not only the transmission of knowledge but also the propensity to create curiosity in individuals that will inspire them to seek new knowledge and add to existing knowledge. These decisions can result in behavior changes that foster the individual's wholistic growth and development. Nutrition education may be defined as the teaching and learning of concepts as well as all educational strategies designed to aid people in making appropriate food choices and engaging in other nutrition-related behaviors. Nutrition education also includes educational techniques and community support to nurture health and well-being as individuals adopt healthy food choices and dietary behaviors.8

People experience two fundamental issues because of limited nutritional knowledge: an inadequate diet that does not provide the required nutritional needs and an unbalanced intake of calories or recommended dietary components.9 Nutrition education seeks to arm



#### **Table 1. Interview With Two Prospective Nutrition Students**

#### Student 1 Student 2

#### Question 1. What is your understanding of the term food and nutrition?

Food and nutrition is a subject that explains ways through which the body gets energy from nutrients found in the different types of food.

Food and nutrition class tells us about the foods that a person should eat or should not eat to help them stay healthy. Food and nutrition teach children how to prepare a healthy diet.

#### Question 2. Is any aspect of nutrition taught in other subjects that you studied? If yes, can you name those subjects?

Yes, I have studied food and nutrition in health-science classes. Some of the topics covered are food groups, fats, protein, carbohydrates, and the nutrients they provide for the body.

Yes, I have studied aspects of nutrition in health-science classes. The topics that I remembered are vitamins. Vitamins are divided into two groups, fat-soluble and water-soluble. Fat-soluble vitamins dissolve in fat and they are vitamins A, D, E, and K. Watersoluble vitamins dissolve in water, and they are all the B vitamins and vitamin C. All vitamins are required to keep the body healthy.

#### Question 3. Why have you decided to study food and nutrition?

Food and nutrition will increase my knowledge of developing new food products with the help of technology and science. It will also provide me with knowledge about the correct amount of energy that the body needs daily to function properly.

I have decided to study food and nutrition because knowing about nutrition and practicing a healthy lifestyle is the best way to prevent certain diseases. Also, God loves when we take good care of our bodies.

#### Question 4. Have you learned food and nutrition concepts and skills at home? If yes, share some of the concepts learned.

Yes. My mother teaches me about the importance of good nutrition including the number of various nutrients that I should have each day to provide the correct amount of energy that the body needs each day.

I have learned that my body is the temple of God, and I should not put anything harmful into my body. I should eat a plantbased diet as much as possible.

#### Question 5. Have you learned anything about nutrition from your local church? If yes, share information that you have learned.

Yes. My church has health programs that teach about good nutrition and its importance for human life. Good nutrition helps to build the immune system and fight against diseases. The church also teaches that God expects us to practice healthful eating and follow the instructions from the Bible about healthy eating.

I have learned from health programs at my church that good health includes healthy eating and exercising regularly. I have also learned that sunshine, rest, and trust in God are important to good health.

#### Question 6. Can you share at least one Bible verse that supports nutrition and health?

"Therefore, whether you eat or drink, or whatever you do, do all to the glory of God" (1 Corinthians 10:31, NKJV).\*

"And God said, 'See, I have given you every herb that yields seed which is on the face of all the earth, and every tree whose fruit yields seed; to you it shall be for food'" (Genesis 1:29, NKJV).

#### Question 7. What are some concepts that you expect to learn from the food and nutrition class?

I am looking forward to learning the principles of nutrition and understanding its importance to the human body. Also, how to prepare and serve healthy foods.

How to supply my body with the healthiest foods. Why eating certain foods keeps the body healthy and how to practice a healthy lifestyle.

<sup>\*</sup> Scripture taken from the New King James Version®. Copyright © 1982 by Thomas Nelson. Used by permission. All rights reserved.

individuals with the necessary information, motivation, and skills to acquire and eat what is necessary for the body to function.<sup>10</sup>

#### The Importance of School-based Nutrition Education

Nutritional knowledge and cooking skills are essential in helping students develop appropriate dietary habits. Providing children and young adults with access to adequate nutrition education and healthful food at school is a significant way to foster both long- and short-term benefits for improved health and learning outcomes. Outside of the home environment, the time children spend in school provides the opportunity for a greater immersive experience in nutrition education than the time spent in any other institution. Schoolbased nutrition education helps children and young adults establish healthful eating patterns early in life by providing them with the knowledge that leads to healthful practices and positive attitudes about food.

Nutrition education should be an essential aspect of a school's wholistic health-education curriculum because it provides students with information and skills to make healthy food and beverage choices.<sup>13</sup> Schools help students to develop healthful eating behaviors by exposing students to:

- Appealing, nutritious foods and beverages;
- Accurate and consistent information about good nutrition;
- Appropriate methods to learn and practice healthful eating;
- Encouraging faculty and staff to model healthful eating habits.

The most popular intervention to attract students to school, increase their learning abilities, and keep them in school are organized and consistent school-nutrition programs.<sup>14</sup> However, the success of these outcomes depends on the program design and context (see Sidebar 1 on page 43).

#### Nutrition Education Must Be Comprehensive and Extensive

While nutrition can be taught as a stand-alone subject, it is easily incorporated into other disciplines such as religion, chemistry, history, social studies, biology, agriculture, and health science. Some examples are as follows:

- ullet Counting with pictures of fruits and vegetables (mathematics) $^{16}$ ;
- Learning fractions by measuring ingredients for a recipe (mathematics)<sup>17</sup>;
- Learning about the nutrients found in different plants (science)<sup>18</sup>;
- Learning about cultural foods and traditions (social studies)<sup>19</sup>;

- Learning how foods contribute to the functioning of the body (health science);
- Identifying biblical instructions about food and diet (religion).

To facilitate a comprehensive nutrition-education curriculum, school administrators, teachers, and curriculum planners should regularly meet to discuss how to include nutrition education in their lessons and schoolwide instructional activities. These meetings should also include plans to ensure that the school's nutrition program sets a good example (see Sidebar 2 on page 43). Possible areas to discuss may include the following:

- Effective strategies for facilitating a sustainable nutrition-education curriculum;
- Parallel activities (classroom, schoolwide, church, and community) that can help teach positive dietary behaviors;
- Ideas for sourcing and sharing resources and expertise among educators;
- Reinforcement of important nutrition concepts across disciplines;
- Ways to avoid presenting conflicting nutrition information during instructional sessions; and
- After-school and extra-curricular nutrition activities that extend beyond the classroom.

### Nutrition and the Development of Skills, Well-being, and Faith

Good nutrition influences mental and physical growth and development during the early stages of a child's life. Food habits to which they are exposed and that form during infancy influence children's food practices and preferences in later stages of life.<sup>20</sup> Studies have found that children's well-being and potential ability to learn improve from access to good nutrition, leading to better academic performance.<sup>21</sup> Nutrition education is a major aspect of fostering sustained healthy behaviors. It should be taught from as early as preschool as a major component of his or her wholistic development.<sup>22</sup>

#### Skill Development

The goal of a well-balanced nutrition-education program is to transmit appropriate knowledge about food, its functions, and its importance to the body. Nutrition curriculums should therefore be comprehensive and engaging and offer skill-focused training to help children to attain nutrition knowledge and develop experiential culinary skills.<sup>23</sup> Programs that arouse interest and provide opportunities for participation in practical activities such as gardening, cooking, and tasting food can empower students as they learn about good nutrition and its impact on their well-being throughout their adult lives.

Teaching and learning sessions for nutrition inside

#### Sidebar 1. Other Activities That Schools Can Use to Promote Nutrition Education

While teaching children and young adults how to make healthful choices is essential for their long-term health and wellbeing, most do not make choices about what to buy. This decision is made by their parents and is influenced by the availability, cost, and access to healthful foods. The school and church can work together to meet this need in a variety of ways:

- Plant school farms and gardens to teach students how to grow healthful foods.
- Ensure that only healthful foods are prepared and sold on the school campus.
- Share short nutrition messages during morning announcements.
- Give nutrition talks during chapels, assemblies, and other school programs that not only direct students to accurate sources of nutrition information but also warn against inaccurate sources.
- · Send nutrition information to parents and guardians in newsletters and flyers.

- Use staff meetings and professional-development sessions to enhance teachers' nutrition knowledge.
- · Share nutrition information at parent-teacher meetings and parent information sessions.
- Participate in creating and facilitating community nutrition programs that include topics such as food-borne illnesses and food-related diseases in addition to nutrition topics.
- Place food and nutrition posters and pictures in strategic areas on the school campus to promote healthy eating.
- Use social media to send nutrition messages to students and their parents.
- Provide a weekly nutrition newsletter to share appetizing and easy recipes for cooking unfamiliar but healthful foods.
- · Offer vegetarian cooking lessons for parents and the community.
- · Work with the church to operate a food bank that offers healthful foods either free or at a nominal cost.

### Sidebar 2. Some Possible Barriers to Facilitating Nutrition Education in Adventist Schools

- Lack of a government mandate that food and nutrition must be taught as a stand-alone discipline or subject area. In some schools, nutrition is incorporated into other subject areas, and this is good; however, stand-alone topics allow for more focused instruction.
- Nutrition concepts can be included in other subject areas such as health education, health sciences, and biology, which ensures that students have adequate access to nutrition education.
- Limited physical resources such as food labs and their required equipment to teach effective, evidence-based nutrition education.
- · Lack of human resources, such as adequately trained nutrition teachers and committed school administrators to facilitate sustained effective food and nutrition programs.
- In some schools, no clear mandate from organizational and administrative levels to teach nutrition education.
- Lack of clear vision about the importance of nutrition education.
- Poor organization and limited supervision of curriculum and instructional activities in some schools.
- The belief that food and nutrition concepts apply only to specific lifestyles rather than critically examining the impact of inadequate nutrition, pollution, pesticides, and inaccurate claims in all diets.

#### **Additional Resources**

- Centers for Disease Control and Prevention, "Opportunities for Nutrition Education in US Schools" (2019): https://www.cdc. gov/healthyschools/nutrition/pdf/308155A\_FS\_SchoolNutrition Ed-508.pdf.
- Food and Agriculture Organization of the United Nations, "School Food and Nutrition" (2022): https://www.fao.org/schoolfood/en/.
- Food and Agriculture Organization of the United Nations, School Food and Nutrition Framework (2019): https://www.fao. org/3/ca4091en/ca4091en.pdf.
- Food and Agriculture Organization of the United Nations, Nutrition Guidelines and Standards for School Meals: A Report From 33 Low- and Middle-income Countries (2019): https:// www.fao.org/3/CA2773EN/ca2773en.pdf.
- · UNESCO, Stepping Up Effective School Health and Nutrition: A Partnership for Healthy Learners and Brighter Futures (2020): https://www.unicef.org/media/94001/file/Partnership for-Stepping-up-effective-SHN.pdf.
- United States Department of Agriculture Library, "Food and Nutrition Information Center" (n.d.): https://www.nal.usda.gov/ programs/fnic. Also, for "Curricula and Lesson Plans," see https://www.nal.usda.gov/legacy/fnic/curricula-and-lessonplans.

and outside the classroom provide students with opportunities to develop food preferences and learn how to prepare food. Through these experiences, they also learn food-related skills such as correctly reading and interpreting food labels, shopping for healthful foods, meal planning and preparation, food storage, and using leftover foods to make healthful meals. Also, learners enrolled in nutrition-education programs have shown improved self-reported food practices such as food budgeting, food safety, and meal-preparation skills.24

Optimal Health and Well-being

Effective evidence-based nutrition education has proved to be a successful approach to fostering positive dietary habits and improving health outcomes for a lifetime. Examples of health benefits for children and young adults include weight loss, a decrease in body mass index (BMI), and the development of a favorable perception of fruits and vegetables, resulting in an increased daily intake of these foods.<sup>25</sup> Many children do not meet their required daily nutritional intake because of unhealthful food-consumption patterns such as eating less than the daily recommended amounts of fruits and vegetables and consuming too many low-nutrient, lowfiber, and calorie-dense foods, high-fat and highsodium snack foods, and sugary foods, including sugar-sweetened beverages. Skipping meals, not eating required meals on time, and other food-related disorders such as binging, purging, and bulimia, are also poor eating patterns that may compromise students' health status.

#### Behavior Changes

The school has a vital role in helping children and young people to adopt positive dietary habits, which can lead to lifelong healthful dietary behaviors. Behavioral science research supports the notion that children's "choice architecture" (ways choices are presented so decisions can be made) can be swayed by what is most visible and accessible in the school environment through meals offered. Also, messages transmitted about nutrition can significantly affect children's dietary selections and eating behavior.<sup>26</sup>

Ellen White noted that we must study God's original plan to know the best foods to include in our diet. Fruits, vegetables, nuts, and grains remain God's original diet plan for humans. The simple preparation of these foods in their natural state produces strength, power, endurance, and vigor to the intellect.

A Deeper Understanding of Health Ministry

God wants His children to live healthy lives, and the study of nutrition science guides learners to a deeper understanding of its driving force, the Creator Himself. Educators who develop lessons and instructional activities for their nutrition classes can integrate biblical concepts into the teaching and learning sessions. Biblical principles that can be incorporated into nutrition lessons include the following:

- God's ideal diet for humanity;
- Comparisons of God's recommended diet with typical diets in various societies;
  - Relationship between God's

ideal diet and health and well-being;

- Relationship between society's diet and health and well-being;
  - Changes in humanity's diet after the Flood.

Ellen White noted that we must study God's original plan to know the best foods to include in our diet. Fruits, vegetables, nuts, and grains remain God's original diet plan for humans.<sup>27</sup> The simple preparation of these foods in their natural state produces strength, power, endurance, and vigor to the intellect. These qualities, she stated, are not achieved from the stimulating impact of a complex diet.<sup>28</sup> In my educational setting, about 80 percent of the students are not Seventh-day Adventists; therefore, the scope for health evangelism is excellent. However, careful planning of instructional lessons and activities is required to teach students biblical principles of diet and food.

#### Conclusion

Seventh-day Adventist schools were established to foster wholistic development in learners. Effective schoolbased nutrition education is essential to this development. Nutrition education in Adventist schools should teach students how to care for their bodies by practicing healthful eating and other appropriate dietary behaviors. In addition, it should help them understand how God sustains life. King Solomon's advice is still relevant today: "Teach children how they should live, and they will remember it all their life" (Proverbs 22:6, GNT).<sup>29</sup> Adventist homes, churches, and schools have a solemn responsibility to create and facilitate health programs that will help

children and young adults make healthful food choices from an early age and sustain them into adulthood.

#### This article has been peer reviewed.

Shondell DeVelde, MA, MEd, MSc, teaches social studies, family studies, history, and food and nutrition at Grand Bahama Academy of Seventh-day Adventists (Freeport, Bahamas). She holds an MA in Human Services with an emphasis in health and wellness from Liberty University (Lynchburg, Virginia, U.S.A.), an MEd in Nutrition Education from Framingham University (Framingham, Massachusetts, U.S.A.), and an MSc in Public Health from the University of South Wales (Newport, United Kingdom). Ms. DeVelde is currently studying for a PhD in Health at Liberty University. Her research interests include nutrition education as a cost-effective tool in combatting childhood obesity and developing nutrition-education policies to address childhood obesity.

#### **Recommended citation:**

Shondell DeVelde, "Promoting Nutrition Education in Seventh-day Adventist Schools," The Journal of Adventist Education 84:2 (2022): 39-45.

#### NOTES AND REFERENCES

- 1. This quotation is often attributed to Hippocrates; however, the source is unclear. See https://www.drgoodfood.org/en/ news/let-food-be-thy-medicine-hippocrates.
- 2. Ellen G. White, The Ministry of Healing (Mountain View, Calif.: Pacific Press, 1905), 295; Rebecca Seguin et al., "Understanding Barriers and Facilitators to Healthy Eating and Active Living in Rural Communities," Journal of Nutrition Metabolism (2014): https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4276670/.
- 3. Louise Mewton et al., "Lifestyle Risk Indices in Adolescence and Their Relationships to Adolescent Disease Burden: Findings From an Australian National Survey," BioMed Central Public Health 19 (January 2019): 60. doi.10.1186/s12889-019-6396-y; Delia A. Bandoh, Gifty Sunkwa-Mills, and Kenu Ernest, "Are Risk Factors for Non-communicable Diseases in Adolescents a Problem in Senior High Schools in Accra?" Ghana Medical Journal 54:2 (June 2020): https://www.ncbi.nlm.nih.gov/pmc/articles/PMC 7837348/; U.S. Centers for Disease Control and Prevention (CDC), "Poor Nutrition" (n.d.): https://www.cdc.gov/chronic disease/resources/publications/factsheets/nutrition.htm.
- 4. 3 John 1:2, New King James Version of the Bible. The Holy Bible, New King James Version, Copyright © 1982 Thomas Nelson. All rights reserved.
- 5. "Seventh-day Adventist Philosophy of Education: Policy FE 05, FE 10," General Conference Policy Manual (Silver Spring, Maryland: General Conference of Seventh-day Adventists, 2003), 221-228: http://circle.adventist.org/download/PhilStat2003.pdf.
- 6. Isobel R. Contento, "Nutrition Education: Linking Research, Theory, and Practice," Asia Pacific Journal of Clinical Nu-

- trition 17:1 (2008): 176-179: http://apjcn.nhri.org.tw.
- 7. Carlos Mejia, "How Much Time Do Kids Around the World Spend at School?" (2021): https://www.fatherly.com/love-money/ schools-days-around-world; National Center on Education and the Economy, "How Much Time Do Students Spend in School in Topperforming School Systems and the U.S.?" (2021): http://ncee. org/wp-content/uploads/2018/02/SchoolYearStatv5.pdf.
- 8. Contento, "Nutrition Education: Linking Research, Theory, and Practice."
- 9. Food and Agriculture Organization, "Agriculture, Food and Nutrition for Africa: A Resource Book for Teachers of Agriculture" (2007): http://www.fao.org/3/w0078e/w0078e10.htm.
- 10. Contento, "Nutrition Education: Linking Research, Theory, and Practice."
- 11. Sara Beckwith et al., "Nutrition Education in America's Schools: A Policy Brief" (2017): https://asphn.org/wp-content/ uploads/2017/10/nutrition-education.pdf.
- 12. CDC, "Healthy Eating Learning Opportunities and Nutrition Education" (2021): https://www.cdc.gov/healthyschools/nutri tion/school\_nutrition\_education.htm.
  - 13. Ibid.
- 14. Dongging Wang et al., "Impacts of School Feeding on Educational and Health Outcomes of School-age Children and Adolescents in Low- and Middle-income Countries: A Systematic Review and Meta-analysis," Journal of Global Health 11 (2021): https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8442580/; Mastewal Zenebe, Samson Gebremedhin, Carol J. Henry, and Nigatu Regassa, "School Feeding Program Has Resulted in Improved Dietary Diversity, Nutritional Status and Class Attendance of School Children," Italian Journal of Pediatrics 44:1 (2018): https://pubmed.ncbi.nlm.nih.gov/29361948/.
- 15. CDC, "Healthy Eating Learning Opportunities and Nutrition Education."
  - 16. Ibid.
  - 17. Ibid.
  - 18. Ibid.
- 20. Carmen Pérez-Rodrigo and Javier Aranceta, "School-based Nutrition Education: Lessons Learned and New Perspectives" Public Nutrition 4:1A (2001): 131-139. doi:10.1079/phn2000108.
  - 21. Ibid.
  - 22. Ibid.
- 23. Neha Rathi, Lynn Riddell, and Anthony Worsley, "Parents' and Teachers' Critique of Nutrition Education in Indian Secondary Schools," Health Education 119:2 (April 2019): 150-164: https:// www.sciencegate.app/document/10.1108/he-11-2018-0054.
- 24. Simone Pettigrew et al., "Evaluation Outcomes of a Longrunning Adult Nutrition Education Program," Journal of Public Health Nutrition 19:4 (May 2015): 743-752. doi.org/10.1017/ S1368980015001536.
- 25. Alison Hard, Claire Uno, and Pamela A. Koch, "The Importance of Nutrition Education in the 2015 Child Nutrition Reauthorization" (2015): https://slidelegend.com/the-importance-ofnutrition-education-in-the-2015-child-nutrition-5b9f308f097c478 7538b45f0.html.
- 26. Suman Ahuja, "The Importance of Nutrition Education in Treating and Preventing Obesity in Minority Populations in the United States" (2016): https://www.teknoscienze.com/ Contents/Riviste/PDF/AF1\_2016\_LOW\_34-37.pdf.
- 29. Proverbs 22:6, Good News Translation® (Today's English Version, Second Edition) © 1992 American Bible Society. All rights reserved.