1 The Role of Nurse Practitioners

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OBJECTIVES

- Discuss the role of nutrition as a component of practice for Nurse Practitioners.
- Describe the relationship between nutrition and commonly occurring problems such as obesity.
- Identify effective methods for integrating concepts of sound nutrition into areas of practice for Nurse Practitioners.

Nurses have outranked all professions in Gallup's annual Honesty and Ethics Survey[1] every year since 1999 (Gallup Poll). This vote of confidence from 81% of Americans participating in the survey comes with the responsibility to provide the best care to those who turn to us for information and advice to prevent disease and maintain health. Given this trust for nurses, we play a pivotal role in educating individuals about nutrition. Research findings demonstrate that consistent, intensive, lifestyle-based interventions can effectively reduce the risk of chronic disease.[2–4]

Practitioners cite barriers to providing nutrition and lifestyle counseling such as lack of time, lack of nutrition knowledge and confidence, poor patient adherence, low levels of patient health literacy, and lack of teaching materials.[5] A major key is consistency, addressing the lifestyle changes at every patient encounter where appropriate. The nutrition objectives for *Healthy People 2020* state that 75% of primary care clinician office visits should include nutrition counseling for individuals with diabetes, hyperlipidemia, and hypertension.[6] In addition, it may be difficult to translate nutrition science into practical dietary advice. We created *The Nurse Practitioner's Guide to Nutrition* to address many of these barriers and to assist Nurse Practitioners in providing useful nutrition education and interventions to those who most stand to benefit.

As healthcare practices and regulations change, nursing practices must evolve to keep abreast of those changes. The Patient Protection and Affordable Care Act of 2010 will provide healthcare coverage to an increased number of individuals. This presents an opportunity to address health disparities and provide resources to

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many for whom this has not previously been a possibility. Partnerships with nurses and other professionals can help to effect change at the individual and community levels. In whatever setting Nurse Practitioners are working (outpatient, home-based, hospital, nursing home, or community), whatever the reason for the encounter (acute problem vs chronic disease management vs health maintenance), and whatever the patient's life-cycle stage, we have the opportunity to improve health outcomes. For example, when patients seek care in the office setting, we have an opportunity to identify nutrition-related risks associated with their usual dietary intake. In the hospital, we must ensure that a patient's diet orders promote restoration of health while minimizing the potential for further deterioration. In nursing homes, where the risk of malnutrition is common, screening and monitoring caloric intake are paramount. Home visits are a unique opportunity to assess how diet and lifestyle information is actually practiced. The community affords opportunities to model healthy nutritional choices and impact population health.[5]

When patients present for an acute problem we should assess the potential impact of that problem on their ability to maintain healthy eating and activity patterns and identify potential nutrition-related problems. Patients seeking health maintenance need routine dietary screening and appropriate patient education. Those with identified nutrition-related problems require a plan to address those problems, part of which should include a follow-up visit to initiate and monitor behavior changes. Assessing patients' readiness to change is a critical component in this process (Chapter 3). Patients being seen for chronic disease follow up may require significant change to their routine dietary intake and often will benefit from a referral to a registered dietitian for more in-depth dietary counseling.[5]

The Nurse Practitioner's involvement does not cease with referral to a dietitian, as is the case with referral to any specialist. We must follow-up on the nutrition consult, support the plan, provide on-going guidance, evaluate the patient's ability to adhere to the diet, and revise the plan as needed. The overarching goal is establishing an eating pattern that provides an array of options that incorporate ethnic, cultural, traditional, and personal preferences while considering food cost and availability. Interventions are indicated across the lifespan. With an infant or toddler, we can teach parents a healthy eating pattern to help maximize their child's growth and development while minimizing the impact of their genetic predisposition for disease (Chapter 4). We can help adults to identify their potential disease risk and educate them about eating properly to minimize that risk or to maximize wellness. As adults age, metabolism slows and small, nutritionally-dense meals are beneficial to minimize the calories consumed and prevent obesity (Chapter 7). In older adulthood we need to screen for nutrition-related problems which affect ongoing health and address the need for a meal plan designed to mitigate the impact of chronic disease (Chapter 6).[5]

Nutrition for Life

What is the best eating pattern for life? How does one sift through all of the recommendations and fads? And of what benefit is the best nutrition advice if it is not followed? The *US Dietary Guidelines for Americans, 2010* was updated amid concern for the growing epidemic of overweight and obese Americans (Table 1-1).[7]

Table 1-1 Dietary Guidelines for Americans 2010[7] Key Recommendations

Balancing Calories to Manage Weight

- Prevent and/or reduce overweight and obesity through improved eating and physical activity behaviors.
- Control total calorie intake to manage body weight. For people who are overweight or obese, this will mean consuming fewer calories from foods and beverages.
- Increase physical activity and reduce time spent in sedentary behaviors.
- Maintain appropriate calorie balance during each stage of life – childhood, adolescence, adulthood, pregnancy and breastfeeding, and older age.

Foods and Food Components to Reduce

- Reduce daily sodium intake to less than 2300 mg and further reduce intake to 1500 mg among persons who are 51 and older and those of any age who are African American or have hypertension, diabetes, or chronic kidney disease. The 1500 mg recommendation applies to about half of the US population, including children, and the majority of adults.
- Consume less than 10% of calories from saturated fatty acids by replacing them with monounsaturated and polyunsaturated fatty acids.
- Consume less than 300 mg per day of dietary cholesterol.
- Keep *trans* fatty acid consumption as low as possible by limiting foods that contain synthetic sources of *trans* fats, such as partially hydrogenated oils, and by limiting other solid fats.
- Reduce the intake of calories from solid fats and added sugars.
- Limit the consumption of foods that contain refined grains, especially refined grain foods that contain solid fats, added sugars, and sodium.
- Consume alcohol, if at all, in moderation – up to one drink per day for women and two drinks per day for men – and only by adults of legal drinking age.

Foods and Nutrients to Increase

Individuals should meet the following recommendations as part of a healthy eating pattern while staying within their calorie needs:

- Increase vegetable and fruit intake.
- Eat a variety of vegetables, especially dark green, red and orange vegetables and beans and peas.
- Consume at least half of all grains as whole grains. Increase whole-grain intake by replacing refined grains with whole grains.
- Increase intake of fat-free or low-fat milk and milk products, such as milk, yogurt, cheese, or fortified soy beverages.
- Choose a variety of protein foods, which include seafood, lean meat and poultry, eggs, beans and peas, soy products, and unsalted nuts and seeds.
- Increase the amount and variety of seafood consumed by choosing seafood in place of some meat and poultry.
- Replace protein foods that are higher in solid fats with choices that are lower in solid fats and calories and/or are sources of oils.
- Use oils to replace solid fats where possible.
- Choose foods that provide more potassium, dietary fiber, calcium, and vitamin D, which are nutrients of concern in American diets. These foods include vegetables, fruits, whole grains, and milk and milk products.

Recommendations for Specific Population Groups

Women capable of becoming pregnant:

- Choose foods that supply heme iron, which is more readily absorbed by the body, additional iron sources, and enhancers of iron absorption such as vitamin C-rich foods.
- Consume 400 micrograms (μg) per day of synthetic folic acid (from fortified foods and/or supplements) in addition to food forms of folate from a varied diet.

(*Continued*)

Table 1-1 (*Continued*)

Women who are pregnant or breastfeeding:
- Consume 8–12 ounces of seafood per week from a variety of seafood types.
- Due to their high methyl mercury content, limit white (albacore) tuna to 6 ounces per week and do not eat the following four types of fish: tilefish, shark, swordfish, and king mackerel.
- Take an iron supplement, as recommended by your health care provider.

Individuals Ages 50 Years and Older:
- Consume foods fortified with vitamin B_{12}, such as fortified cereals, or dietary supplements.

Building Healthy Eating Patterns
- Select an eating pattern that meets nutrient needs over time at an appropriate calorie level.
- Account for all foods and beverages consumed and assess how they fit within a total healthy eating pattern.
- Follow food safety recommendations when preparing and eating foods to reduce the risk of food-borne illnesses.

Source: Dietary Guidelines for Americans 2011.

Approximately one-third of American adults are obese and 72% of men and 64% of women are overweight or obese.[8]

Despite the fact that patients accept the old adage "You are what you eat", they do not seem able to apply this to their day-to-day dietary intake.[5] While many of our patients recognize how important it is to "eat right and exercise", a study from the Pew Research Center found that Americans see weight problems everywhere but in the mirror. According to this report, 90% of American adults say most of their fellow Americans are overweight, but only 70% say this about "the people they know", and 40% say they themselves are overweight.[9]

Approximately 75% of adults are not eating enough fruits and vegetables.[10] Our culture supports convenience, our policies favor junk food, our restaurants have huge portion sizes to increase the perception of value, and our TV viewing habits demonstrate avoidance of exercise. Convenience foods, ever more popular, are typically not healthy choices. When attempting to counsel a patient about nutrition, the Nurse Practitioner faces the barriers of time, money, taste preference, culture, family, and habit. Health is unfortunately far down on the list of factors that are considered when food choices are made.[5]

The typical American diet is too high in calories, sugar, saturated fat, and salt, and limited in fruits, vegetables, and low-fat dairy foods. Fewer than 25% of Americans get five servings of fruits and vegetables daily. Even among children, calcium intake is inadequate in almost half of 3–5 year olds, and 70% of 12–19 year olds.[11] Whether it is the phosphates in soda that may leach out calcium or the displacement of dairy intake, many teens are losing calcium instead of storing it up during this critical time for building strong bones. Osteoporosis later in life is one complication that may result from over-consumption of soda over many years.[12]

To correct these imbalances, we need to encourage patients to reduce portion sizes to reduce calories; choose healthy snacks (fruits and vegetables, not candy bars or chips); and reduce the consumption of products made with sugar (cakes, cookies, and pastries) or high fructose corn syrup (soda and sweetened fruit or sports drinks).[5] Sugar and other sweeteners hide in baked goods and beverages. Using more herbs

and spices can enhance flavor in foods while providing less salt and more health-promoting antioxidants. Low-fat milk and other low-fat dairy foods, lactose-free and soy products supplemented with calcium, and calcium-fortified products (like orange juice) are good alternatives, yet many of these products may also contain sugar.[5] Prescribing a calcium supplement will help address a chronic inadequate calcium intake that is prevalent in our population and may reduce the risk of osteoporosis in the elderly (See Chapters 6, and Appendices G and H).

Case 1

Joey is a 16-year-old boy who comes in for a school physical. He is 5′ 9″ and weighs 200 lb. He loves junk food and hates vegetables. His mom says he watches a lot of television and when questioned, he reports playing video games for at least 3 hours every day. He is on the honor roll in school, but doesn't have many friends. You identify the following problems:

- BMI: 30 (>95th percentile diagnostic of obesity).
- No exercise with highly sedentary activities.
- Excessive fat and sugar from junk food and sweets.
- Avoids vegetables.

APPROACH: This common case can be overwhelming and it is hard to know where to start. First ask Joey if he likes any kind of exercise and encourage those activities, including walking, biking, or weight lifting. A teenage boy with few friends may find it harder to engage in team activities such as playing street hockey or those that require a partner such as tennis. Quantify the number of hours he plays video games and negotiate that this should be reduced and daily physical activity increased. Discuss the importance of reducing junk food, avoiding candy, cookies, and chips, and emphasize healthier snacks. Always include at least one parent, grandparent or guardian in the discussion and be sure to emphasize that the parent's role is to stop buying junk food and offer healthier snacks and vegetables when the teenager is most hungry, such as after school. Often overweight children and teenagers have at least one overweight parent and the entire family's dietary choices and lifestyle need to be addressed. It's important not to expect rapid results and parents should be discouraged from criticizing. Lifestyle change is hard and changes need to be sustainable! Praise any change in a positive direction.

Assessment and Diagnosis

Successful nutrition interventions begin with careful assessment of the individual including a family history of risk factors, such as obesity, cardiovascular disease or diabetes (Chapter 2). The patient's meal and exercise patterns can be ascertained through directed questioning and perhaps keeping a food diary to prevent the pitfalls of recall and perception. Body mass index (BMI) should be calculated for everyone, including children and teenagers, followed by a discussion of how the patient's weight compares with norms (Chapter 7). Use prevention visits as an opportunity to educate patients regarding the deleterious effects of a sedentary lifestyle and unnecessarily large portion sizes.

Food insecurity is a mounting problem in the current economic climate. Research shows that almost 15% of American households do not consume adequate food to

Case 2

Abby is a 30-year-old consultant who comes in for a check-up. She travels a lot for work and eats most meals out. She likes to exercise but says that she is often too busy. She is 5′4″ and weighs 165 lb. She played field hockey in college but has gradually gained weight since that time. You identify the following issues:

- BMI: 29 (diagnostic of overweight).
- Eats a lot of restaurant meals.
- Not enough exercise.

APPROACH: Abby's current BMI places her close to the diagnosis of obesity and if she continues her current lifestyle, it is likely that her weight will reach a BMI of 30, increasing her risk of chronic diseases. Discussing how to eat healthily in restaurants would be most useful. Suggest strategies such as skipping bread, limiting wine to one glass, ordering salad dressing on the side, ordering broiled, grilled or baked fish or chicken, and limiting portion sizes, especially if she orders a high fat cut of meat. While sharing dessert may not be possible during business dinners, it may be on social occasions. Brainstorm with her regarding ways to increase exercise and suggest she use weight rooms at hotels, climb stairs when possible, and walk instead of taking taxis. Recommend follow-up in 3 months.

meet dietary needs due to lack of sufficient funds or other food resources.[12] A thorough dietary assessment includes information on income and resources for obtaining food in addition to food intake and eating patterns.

Help patients who need to change eating patterns by identifying community resources including websites such as www.choosemyplate.gov and offer advice, encouragement, and referral when indicated.[6,14] Start the discussion of healthy eating with everyone, but especially focus on those with hypertension, diabetes mellitus, and hyperlipidemia who stand to benefit the most from improved nutrition. It is important to help those who are not eating what they should or not exercising regularly to begin doing so before they develop the health problems that result from poor lifestyle habits. Small changes are the best way to begin and then monitor progress towards a goal.

Effecting Change

Motivating clients starts with Nurse Practitioners. Patients are likely to take note of, and perhaps even be motivated by, a busy professional who practices what he or she preaches. Following the lifestyle and eating pattern we recommend bolsters our credibility with our patients. Certainly this is a win–win situation for us and our patients, and can be accomplished in various ways. Become knowledgeable about exercise options available in your community, advertise fundraising walks and races where you see patients, join them when you can, and be seen where good nutrition is being promoted. Participate in physical activity yourself, encourage your children's involvement in team sports, get involved in your local school or community, and be a voice for more physical activity and healthier food choices. Encourage your colleagues

to eat healthy and to exercise regularly. If clinicians don't promote work-site health, who will? The internet, used judiciously, has good nutrition information and can be an excellent resource. When your patients see you living the lifestyle, they will be more inclined to seek out and follow your advice when they need help. Become a resource in your community: volunteer to speak about promoting good nutrition at school and business events, town hall meetings, or church functions. Help your neighbors to identify ways to eat healthier and increase physical activity. The more experience you have with these lifestyle challenges, the more of a resource you will be for those who look to you for assistance.[5] Unfortunately, the literature does not provide us with models that have been shown to be universally effective, so it is up to each of us to develop our own approach to addressing eating patterns and activity counseling for our patients. Examples of models that have been developed are described in Chapter 3.

Food is much more than nutrition for every individual. It represents nurturing, love, sociability, and even entertainment (as evidenced by the popularity of the Food Network). For many Americans, a chubby baby is a healthy baby and attempts to direct parents toward a more appropriate feeding style will not be appreciated. The news media is not helping. Each new dietary study is trumpeted with the fanfare of a newly discovered scientific fact. So when contradictory results are found (which happens often in science), patients (and their clinicians as well) are left confused about what to believe and what to include in a "healthy diet".[5]

Cultural factors and diet-related attitudes and behaviors strongly influence health.[15,16] The cultural milieu that affects a person's diet includes: the rules surrounding the person's upbringing, whether or not the person immigrates to a new society, the degree of acculturation to the new society, and the degree to which traditional foods in the culture of origin are available in the new society.[15,17] The meanings and uses ascribed to foods in any particular culture may be unique to that culture, even though the foods themselves are commonly available and may have different or no special meaning in other cultures.[18–20] Culture influences many food-related behaviors including food choice, food purchasing, preparation, where and with whom food is eaten, health beliefs related to food, and adherence to dietary recommendations.[16,21–23]

Culturally competent health care builds upon the understanding of these cultural influences and facilitates the development of stronger patient–provider relationships with higher levels of trust. This has been shown to be associated with increased use of recommended preventive services in ethnic minority patients.[20] Therefore, understanding the sociocultural context of health for individual patients is very important for effective health care, as culture may influence health knowledge, attitudes, and behaviors, including diet.

At the community level, providers trying to address the behaviors that lead to obesity face a similar unsupportive environment that we had trying to help patients quit smoking in the 1950s. Policy changes currently being considered that may help move our patients from where they are to where they need to be include: requiring fast food restaurants to include nutritional information on their packages, taxing sweetened beverages, and developing devices that monitor television viewing and video game use by our children.[5] Change begins with one small step and gains

momentum. *The Nurse Practitioner's Guide to Nutrition* is a key resource to effectively begin the journey to provide optimal nutrition therapy for patients in order to reduce chronic disease and change diet and lifestyle.

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