The Science of Nutrition and the Value of Global Collaboration

I am deeply honored to have been nominated and selected for this award by the faculty. I am proud to work with each of you to make UNF, and its many degrees and programs the best they can be for our students. I want to especially acknowledge the significant and important work of Dr. Adel El Safty as distinguished professor runner up with whom I share this award.

It is also humbling to share this event with the outstanding faculty honored here today and last year’s distinguished professor, Dr. Dominik Guess. I am also grateful to the UNF Foundation for funding this award each year. It is a pleasure to look out at all my friends serving as faculty, staff, and administrators as deans, associate deans, or chairs and to celebrate this day with each of you.

There are several people I need to thank without whom I would not be standing here today. Mentors: Dean Emeritus Pam Chally, Chair of Nutrition and Dietetics Judy Rodriguez, Professors emeriti Judy Perkin and Simin Vaghefi, and all the faculty and staff in the Brooks College of Health. I also want to thank my college roommate Jo Shuford Law for traveling from Tallahassee to be here. This year, the profession of nutrition and dietetics is celebrating its 100th year! You may have heard that the secret to good nutrition is choosing the right foods. Well, the secret to a good marriage is choosing the right husband. So I also want to recognize and thank my husband Leo who like a very fine red wine, is only getting better with time.

I discovered my interest in nutrition when in my freshman year I took a basic nutrition course as one of my science requirements. My professor was part of the team that discovered that eating patterns in the south where the diet was primarily based on corn meal and grits resulted in niacin deficiency or pellagra. There were 3 million cases and over 100,000 deaths due to pellagra in the US in the four decades from 1910 to 1950. Dr. Cate described how they had no idea how much niacin was needed and so were giving it in teaspoons to the patients they saw with the typical skin rash, weakness, and diarrhea until their symptoms disappeared. We have come a long way since then in our understanding of nutrients and diet patterns and their relationship to health.

Some of my interest in nutrition is also probably my parents fault. They were both New Yorkers who had moved to Tallahassee where I grew up. We had many discussions at home about food and the foods my parents missed from Long Island like steamed clams, hard salami, bakery rye bread, and NY state extra sharp cheddar cheese. Every summer because they were both teachers, when school was finished, we packed up and drove back to Long Island and made a beeline for the fish market and the local deli before we even got to my grandmother’s house. First things first!
My path in academia is probably a little different than many of yours because when I finished my doctorate at Florida State, I went to work in the field as a practitioner. So my first job after graduation was at University Hospital, now UF Health. It was a wonderful experience because at UF Health, especially for a new practitioner, you see everything. I worked as a clinical dietitian on the medical floors, post-surgery, in the ICU, and in the endocrinology clinics primarily for diabetes and hypertension.

I left there after a couple of years and with a colleague started a private practice. We did a little bit of everything from seeing patients in family practice physician offices, doing nutrition counseling for pregnant women in an OB/GYN practice, serving as a consultant dietitian in long term care facilities, child and adult mental health facilities, designing the first spa menus for a local country club, and creating cycle menus for county jails throughout the US. Quite a contrast in food cost and menu design. Each of these clients had different needs, goals, and desired outcomes and I learned to work with lots of different health professionals and administrators.

I eventually transitioned to spending most of my time providing nutrition related continuing education courses for health professionals to maintain their license to practice. Over several years, I traveled to almost all 50 states giving two or three 6 hour seminars a week. One of the best parts of that work was sampling all the regional and local foods and interacting with the health professionals in the audience. In the fall of 2000, Judy Rodrigue mentioned to me that UNF had an opening for an assistant professor. I was fortunate to join the ranks of our faculty in 2001.

For those of you who don’t know, I want to share a little bit about what it is like to live in the world of nutrition. First of all, everyone eats and therefore, everyone is qualified to be a nutritionist. Despite the many bloggers and Facebook posts, we see today and the many books and magazine articles around when I started, the practice of nutrition and dietetics became a licensed profession in Florida in 1989 and is now in most other states. Yet, there is no shortage of people with no formal training in the field who want to give advice on diet and nutrition.

So, when someone calls and wants to know how to become a nutritionist, and they have no training in the field and don’t want to spend the time to do our course work and tell me instead they will just go online and do an unaccredited degree or certificate program because they are already doing nutrition counseling, it is annoying to say the least and actually illegal in Florida and many other states.

Nutrition is a relatively young science and it is becoming increasingly obvious that food is an important part of both preventive medicine and treatment for the chronic diseases we face today including diabetes, hypertension, heart disease, cancer, and others. There is a new specialty in nutrition called culinary medicine which describes it well. Fruit and vegetable prescriptions along with increased access to produce are both being introduced in community settings.

Diet and health are inextricably linked and a diet is more than one food, one meal or even one day’s intake. We train our students to do a nutrition focused physical assessment, to evaluate the diet, food habits and eating behaviors over time in light of individual or group needs, desires, and health risks.

Despite what you often hear, particular foods are not inherently good or bad and we are not good or bad when we eat them. Some are more nutritious than others but it is the overall pattern of eating that really makes a difference in how you feel, your health, disease risk, or your sports performance.
And nutrition is a scientific discipline, so there is an ever growing body of peer reviewed literature just like any other science field that is used to form the basis of practice. One difference is that the pace of nutrition research has accelerated since the days of pellagra and it is ever evolving and changing. That is frustrating for consumers who think we can’t make up our minds about what is optimal when it is simply the nature of progress. As in other health disciplines, our students are trained to evaluate the evidence to determine what is enough scientific evidence to change practice especially at the master’s level with additional courses on statistics and research design. And, a master’s degree will become entry level for nutrition practice in 2024.

In any grocery store, we are bombarded with health claims on food labels such as all natural potato chips, zero trans-fat cookies, sugar free candy, high protein powder, low carb cereal, fat free margarine, healthy coconut water, and gluten free everything, even products that never had gluten. The same was true of cholesterol many years ago. It was interesting to hear the recent political discussion surrounding alternative facts. Welcome to our world! Of all the health disciplines, there is probably more misinformation about food and nutrition than any other.

I want to talk a minute about one of our graduate students and her work as an example of the impact our students are having in the field. Julie, recently graduated from our DL Masters students works in a hospital in south Florida. She noticed as had many others that patients with congestive heart disease, sometimes called frequent flyers because of their high hospital readmission rates, had a lot of nutrition issues as well as declining quality of life and those characteristics were supported by research studies. Her patients often did not have the stamina to prepare foods at home and also met the criteria for malnutrition. Their high readmission rates within 30 days of discharge cost the hospital significant penalties. So, Julie worked with the chef and developed 3 months of nutritious 3 meal a day menus which would be delivered by the hospital to a cohort of 60 patients.

At the end of 3 months, the patients reported feeling much better and stronger, eating and exercising more, they no longer met the criteria for malnutrition, stayed out of the hospital and at a cost of $800 a month per patient for meal delivery, and her program saved the hospital $2.5 million in Medicare penalties. A great example of the value of evidence based practice.

The biggest change coming in nutrition is nutrigenomics which I believe will transform some aspects of nutrition practice. In addition to the more general standards for meeting nutritional needs to prevent malnutrition and optimize health, nutrition prescriptions based on genetic testing could become the norm. There is a growing body of evidence in established peer reviewed journals that consumption of different foods over time can actually change our gene expression and reduce our disease risk. And these changes occur relatively soon after changing the diet. In some recent studies, as soon as two weeks.

Just as there is diversity in genetic markers for disease, there is also great diversity in food patterns throughout the world. Exploring the foodways, customs, and health care of other countries gives our students further insight into the differences diet can make in health risks and outcomes.

At UNF, I have been fortunate to participate in study abroad trips with faculty and students to both Belize and Italy. While in Belize a few years ago, we asked elementary school children to draw a picture on a paper plate of what they had for dinner the night before and every child drew the same picture; chicken, rice, and beans. Our graduate students surveyed the local population in San Ignacio, a small town in the interior of the country and found widespread nutritional deficiencies in Vitamins A
and C. Although the country had many native fruits such as papaya and pineapple, those were cash crops that were predominantly exported. And encroachment of non-nutrient dense foods was happening rapidly even in the elementary schools where we worked.

Two international eating patterns that have been associated with positive health outcomes in the literature are the Asian diet in China and Japan and the Mediterranean diet in Spain, Greece, and Italy. Nutrition faculty have travelled to Tuscany and Umbria for the last 4 years with the help of the International Center and support from TLOs and a grant from Student Affairs. Learning about food patterns and differences in culture around food and health is truly transformational. Italians brought Italian food ways to the U.S. when they immigrated here many years ago. We Americans consequently have a love of Italian food but what we love is the American version we know and not the Italian version. A few examples of the difference from our travels to Italy:

Italians actually use very small amounts of garlic for flavor. Too much garlic overrules the taste of the main ingredients. And, they almost never combine garlic and onions in the same dish.

True Italian pizza should have only three toppings, our Italian friends describe it as one star and two supporting actors. Margarita pizza named after Queen Margarita is a prime example, tomatoes, mozzarella and basil, the colors of the Italian flag!

Less is better and simple is better. Sauce is never ladled on top of pasta, rather the cooked pasta is added to the sauce and tossed right before serving. The portion sizes are much smaller than you see here where one order of spaghetti can feed a family of four. If you have sauce left in the bowl when the dish is finished, you used too much. Meatballs are never served on top of spaghetti. Spaghetti and meatballs is strictly American.

Pasta is often flavored with small amounts of meat and extra virgin olive oil is the predominate fat in the diet. Grapes are locally grown and wine is considered a part of the meal and is almost never consumed in excess except by tourists.

Breakfast is not the most important meal of the day and typically consists of cappuccino and a brioche or roll sometimes with fruit. Cappuccino is never consumed after 11 am, except by tourists.

Espresso is good all day long and is especially good poured over gelato if you need a pick me up in mid-afternoon.

Local and fresh food is the norm and the Slow food movement began in Italy. At its heart is the aim to promote local foods and traditional cooking and food production. When I say local, I mean local. The first time we took students, we were on the bus going from the villa outside of Perugia to Cortona 20 minutes away. Our guide, Catia told me I would have to tell the bus driver how to get to the outdoor vegetable market since she had never been there. She had lived in Perugia for 40 years and had never been to the outdoor market in the next town! When I asked why not, she replied, why would I? We have our market here. That’s truly local.

Seasonal food is celebrated. When we take the students in spring, wild asparagus is in season. We pick it and create pasta with asparagus and local fresh pecorino sheep’s milk cheese. In fact, the small towns in Tuscany and Umbria have a sagra (festival in Italian) celebrating their particular local food each year. They have been doing this since the 1100s.
Mealtime in Italy is also different from ours. Even at lunch, many shops close except in the big cities. Dinner is often a few hours around the table with family and friends with multiple courses of fresh local ingredients prepared according to generations of tradition with local wines to match. And, everyone walks. 15-20 thousand steps/day is the norm.

Although we have well equipped food labs in Building 39 at UNF, we can’t replicate the food, the culture, or the experience of eating the Mediterranean diet in Italy. Believe me, we’ve tried! I think about those meals when eating lunch at my computer or when I see people eating fast food out of a bag, eating alone, or more often eating with their favorite electronic device.

Everyone needs carbohydrate, protein, fat, vitamins, minerals, water and fiber. It is the way we get those nutrients and other food components through many diverse foods, meals, patterns, cultures, and backgrounds that impacts our health.

Likewise, our UNF community is a place where faculty, staff, and students who are also from diverse cultures and paths come together for the purpose of learning. That diversity of thought and experience is one of the great strengths of a university.

A similar process happens when working in interprofessional teams in healthcare. When you understand another person and the contribution they can make, everyone gives and gets better care. We have an opportunity in this year of change and new leadership at UNF to celebrate our progress and build on our diverse strengths to create an even stronger future together.

I would like to end with this quote you might appreciate from Winston Churchill. “Courage is what it takes to stand up and speak, courage is also what it takes to sit down and listen”.

Thank you for giving me the opportunity to share some of the work I love with you today.

I am extremely grateful to be a part of the UNF family.