Spring 5-5-2015

A Comparison of Turkish Students in Istanbul and Syracuse: Using Three-Day Food Records, Surveys, and PhotoVoice to Evaluate Changes in Dietary Habits with Acculturation and Plan an Appropriate Nutrition Intervention

Brittany L. Peterson
*Syracuse University*

Follow this and additional works at: [https://surface.syr.edu/honors_capstone](https://surface.syr.edu/honors_capstone)

Part of the [Dietetics and Clinical Nutrition Commons](https://surface.syr.edu/honors_capstone)

**Recommended Citation**


*Syracuse University Honors Program Capstone Projects*. 874.

[https://surface.syr.edu/honors_capstone/874](https://surface.syr.edu/honors_capstone/874)
A Comparison of Turkish Students in Istanbul and Syracuse: Using Three-Day Food Records, Surveys, and PhotoVoice to Evaluate Changes in Dietary Habits with Acculturation and Plan an Appropriate Nutrition Intervention

A Capstone Project Submitted in Partial Fulfillment of the Requirements of the Renée Crown University Honors Program at Syracuse University

Brittany Leigh Peterson
Candidate for Bachelor of Science in Nutrition and Renée Crown University Honors
May 2015

Honors Capstone Project in Nutrition

Capstone Project Advisor: ______________________
Dr. Sudha Raj, Associate Professor

Capstone Project Reader: ______________________
Dr. Matthew Mulvaney, Associate Professor

Honors Director: ______________________
Stephen Kuusisto, Director

Date: April 22, 2015
Abstract

The immigrant population of the United States is growing rapidly, so the health status of immigrant populations is an important public health issue. When it comes to nutrition, research has shown that immigration to the United States is often associated with an increased risk of chronic diseases, in particular, those related to dietary changes that include lower fruit and vegetable consumption and higher fat intake (Satia et al., 2002).

“Dietary acculturation” is the term used to describe the changing dietary patterns of immigrants, but in this research it is used in relation to the changing dietary habits of international students coming to the United States (Satia, 2010). Nutrition professionals can use dietary acculturation research to help specific groups have a more positive and healthy acculturation experience. In these cases, understanding the culture from which people come, and how their habits change in the United States, is crucial for successful client-counselor relationships. Since less attention is often given to smaller populations, their acculturation experiences of such people are largely undocumented.

This project focuses specifically on Turkish students who have come to Syracuse University, in the United States, and how their dietary habits compare to their peers in Istanbul, Turkey. The students are not immigrants; however, the changes in their dietary habits are useful to study because they are preliminary changes that could set the framework for how their dietary habits might change if they were to immigrate.

There are four key components to this project. First, I actively engaged in a process of seeking out activities to increase my own cultural competency: “recognizing and reforming one’s attitudes, beliefs, skills, values, and levels of awareness to provide culturally appropriate, respectful, and relevant care and education” (Goody, 2010). Second, I collected dietary and food cultural data from Turkish students in both Istanbul and Syracuse for comparison. Third, I organized a nutrition education intervention to encourage healthy dietary acculturation for Turkish students at Syracuse University. Finally, there is this report which documents my complete transition from knowing very little about Turkish culture to being able to work closely with Turkish students to improve their dietary habits. It displays how nutrition professionals with very little background knowledge on any culture can expose themselves to the culture and actively learn about it to improve their cultural competency, learn about acculturation issues, and plan an appropriate intervention. It also displays the importance of working with minority groups who would otherwise be lost on a large campus. It is hoped to be an example for other students and nutrition professionals, who with their own cultural interests and target populations, are trying to best meet the needs of their clients’.
Executive Summary

Food is universal, but the differences in what is consumed, how it is prepared, who prepares it, how it is eaten, and how people think about it vary around the world. The differences in food-related values, beliefs, attitudes, and practices between groups make up what can be termed the “food culture” of members of a specific community. Just as it is difficult to hear your own accent when speaking your native language, your own food culture might be difficult to assess without comparing it to another. Those differences become more apparent when you leave your home environment. For some people, the move out of their home environment is permanent. The foods that they are accustomed to eating may be difficult or even impossible to find in their new home. Lack of native ingredients, cost, convenience, and accessibility are a few examples of reasons why some dietary changes may be inevitable when someone relocates.

The term “dietary acculturation” describes the process by which immigrants adopt new dietary patterns, but in this research is used to discuss the changing dietary habits of international students when they come to the United States to study (Satia, 2010). A dramatic change in dietary habits can lead to increased risk of certain diseases. Immigrants and international students are challenged with maintaining the healthy habits from their own culture, while adopting the healthy habits of the new culture. This issue is one that dietitians need to be prepared to deal with in everyday practice settings, and requires knowledge about food cultures outside of one’s own.

Census data shows that in America, one of every four people is of non-European heritage, and one in every ten residents was born in another country (Kittler, 2004). With this in mind, every nutrition professional should expect to encounter a client from another area of the world. In that situation, the nutrition professional needs to modify his or her approach to counseling that client in order to have a productive counseling experience. For instance, in counseling a Turkish
client, the counselor should be aware of possible dietary restrictions for Muslims in case that client reveals that he or she is a practicing Muslim. The relationship built between the counselor and client is an important determinant of whether the client will successfully make a behavior change, and knowing the details of a client’s culture is the cornerstone to building that relationship. If a nutrition professional fails to be respectful of cultural differences, the entire counselor-client relationship may be unproductive. Thus, dietitians need to be prepared to work with clients with diverse backgrounds and appreciate the cultural differences which may call for an altered approach to counseling. Recognizing and reforming one’s attitudes, beliefs, skills, values, and levels of awareness to provide culturally appropriate, respectful, and relevant care and education” is referred to as “cultural competency” in the healthcare field (Goody, 2010).

The first goal of my project was to gain an understanding about Turkish food culture and proficiency in Turkish language to increase my cultural competency as a future nutrition professional working with diverse clients. The second goal was to assess the dietary habits of the Turkish students so that I could compare them to the 2010 Dietary Guidelines for Americans, in combination with typical Turkish eating habits, and what is realistic for international students at Syracuse University. As a third goal, I used what I learned in order to plan an effective nutrition education intervention.

In order to improve my own cultural competency, I took many steps to learn about Turkish culture. While living in Turkey for eight months, I completed two courses about Turkish history and politics. I also studied the Turkish language. When the class ended I studied on my own and with Turkish language partners and was able to place into Turkish 202 in the Spring 2015 semester. I also interned for two full days per week at the Turkish Cultural Foundation’s Culinary Arts Center in Istanbul to improve my food culture specific knowledge. While traveling
to different areas of Turkey I was able to meet many different people to see the diversity within the population. This exposure was important because it helped me to better relate with a variety of different types of people and appreciate the complexity of what makes up any Turkish person’s identity. When I got back to Syracuse from Turkey, I was able to connect with the Turkish Student Association; that in combination with my Turkish language class led me to be involved in a lot of cultural events such as film screenings, Turkish tea and coffee nights, and even social gatherings with many of the Turkish students. In summary, I have spent a lot of time with and learning from Turkish people which has in turn improved my cultural competency and my ability to help Turkish clients address nutrition issues.

The research and data collection portion of the project focused on Turkish students and how their dietary habits vary between Istanbul and Syracuse. I conducted parallel dietary studies on two groups to compare a “typical” Turkish student’s diet in Istanbul versus a “typical” Turkish student’s diet in Syracuse. The first group consisted of Turkish students at Bahçeşehir University in Istanbul, Turkey, and the second consisted of Turkish students at Syracuse University in Syracuse, United States of America. Students in both locations completed three tasks. The first was to record their food intake over the course of three days, including pictures and descriptions of the items for accurate portion sizes, which were tracked in the nutrition analysis program called “Supertracker” to compare to the 2010 Dietary Guidelines for Americans. The second was to take 10 photographs of items they considered important to their food culture and/or eating habits in their current location. The third was to complete a survey asking about demographic information, typical meals, favorite foods, and other food-culture related questions.
With the information I collected, I found seven main issues to focus on to develop a nutrition education program. Those issues included: decreased consumption of Turkish foods, low fruit and vegetable consumption, low protein consumption, low whole grain consumption, skipping meals (mainly lunch), poor access to food, and lack of cooking at home. The culminating event for my project was a nutrition education and dinner event in Lyman Hall Cafe on March 19th called “Turk Yemekleri Amerika’da” (English: Turkish Food in America). I used my own cultural competency about Turkish food and culture, input from Turkish friends, and my research to develop the program. As an American student, my unique combination of native knowledge of the United States’ food system in combination with an understanding of Turkish food culture put me in a great position to plan this event for Turkish students at Syracuse University. I cooked a large meal of healthy Turkish foods for about 30 Turkish students, including: cacık (yogurt with cucumber and herbs), sebzeli mercimek çorbası (pureed red lentil and vegetable soup), kıırı (bulgur and vegetable salad), nohutlu ıspanak kökü (spinach stem and chickpea stew), içli pilav (spiced rice with currants and pine nuts), kepekli ekmek (whole wheat bread), çikolatalı kuru incir (chocolate covered dried figs with pistachios), and cezerye (carrot and nut bars covered in coconut). While the guests were eating, I presented ways that Turkish people can improve their dietary habits while living in the United States. This event was an important part of my project because it allowed me to use my research to actually provide a targeted nutrition intervention to the population that I had worked with.

I also created a blog called Anatolian Kitchen to share my own healthy versions of Turkish dishes to a wider audience. As a result of this blog, I have been published on the Academy of Nutrition and Dietetics Food & Nutrition Blog Stone Soup. Additionally, one of my Turkish recipes was selected by the Academy’s Food & Nutrition Magazine. I am currently
working for the magazine to develop the recipe for publication, and it will be featured in an upcoming issue under an article about ways to use whole grains in unexpected ways.

As a future nutrition professional, this project has taught me more than just how to work with Turkish clients, it also increased my overall sensitivity and appreciation for diverse cultures, and showed me how much detail there is to learn for every food culture that exists. While I cannot possibly learn everything about every culture in my lifetime, I can be prepared to ask the right questions and express empathy to people from all areas of the world. Nutrition students and practitioners should be encouraged to take opportunities to become more culturally competent whenever possible, even if they cannot physically live in another country to learn about another food culture directly. Particular attention should be paid to minority groups who have less support. Cultural competency is not a focus area for one specific kind of nutrition professional, nor is it optional. Cultural competency development is a lifetime process in which every nutrition professional needs to always be engaged.
Table of Contents

Abstract........................................................................................................ iii
Executive Summary...................................................................................... iv
Acknowledgements (Optional)................................................................. x
Advice to Future Honors Students (Optional).......................................... xi

Introduction................................................................................................. 1

Chapter 1: Food Culture, Dietary Acculturation, & Cultural Competency.... 5
  Enculturation.......................................................................................... 5
  Food Culture......................................................................................... 6
  Individual Dietary Habits and Food Culture........................................ 8
  Dietary Acculturation........................................................................... 9
  Cultural Competency.......................................................................... 10
  Literature Review............................................................................... 13

Chapter 2: Turkish Cuisine in Historical Perspective.............................. 19
  Nomadic Beginnings........................................................................... 19
  The Ottomans..................................................................................... 23
  Türkiye Cumhuriyeti - The Republic of Turkey............................... 26

Chapter 3: Modern Turkish Food Culture............................................ 29
  Modern Turkish Cuisine................................................................. 29
  Regional Cuisines............................................................................ 34

Chapter 4: Using three-day food records, PhotoVoice, and surveys to assess
  dietary acculturation among Turkish students in Istanbul and Syracuse..... 37
  Methods............................................................................................. 37
  Results and Discussion..................................................................... 40
  Conclusion......................................................................................... 67

Chapter 5: Turkish Student Nutrition Education..................................... 67

Chapter 6: Anatolian Kitchen Blog....................................................... 72

Works Cited.............................................................................................. 74
Appendices.............................................................................................. 77
Acknowledgements

Sudha Raj
Matthew Mulvaney
Erika Wilkens- Sözen
Burak Tamaç
Sherry Keyt
Mark Peterson
Merve Dindar
Alejandro Medina
Banu Özden
Fethi Satıroğlu
Mary Kiernan
Rick Welsh
Hacı Karataş
Mary Fedorko
Eric Holzwarth
Gerard McTigue
Advice to Future Honors Students (Optional)

The Islamic poet and scholar Rumi, Mevlana in Turkish, said the following:

“Everyone has been made for some particular work, and the desire for that work has been put in every heart.”

With this in mind, I encourage you to use your Capstone as an excuse to become more knowledgeable about something that you care deeply about.
Introduction

Immigration is a major event in a person’s life, and can represent a substantial shift in lifestyle and environment, which can rapidly change a person’s chronic disease risk (Satia, 2010). Evidence from many studies shows that exposure to a western lifestyle increases risks of several major chronic diseases in migrants to the United States, especially related to lower fruit and vegetable consumption and higher fat intake compared to in their home countries (Satia, 2002). The purpose of this project is to explore Turkish food culture and how Turkish students change their dietary habits when they move to the United States.

“Dietary acculturation”, the process by which immigrants, or students in the case of this research, adopt new dietary patterns, is particularly important for nutrition professionals to understand when counseling clients from different areas of the world (Satia, 2010). Dietary acculturation of clients or patients needs to be understood for cultural competency of nutrition professionals: “recognizing and reforming one’s attitudes, beliefs, skills, values, and levels of awareness to provide culturally appropriate, respectful, and relevant care and education” (Goody, 2010). Understanding the cultural significance of dietary habits helps us to relate better to clients, and be more effective by offering culturally appropriate feedback and recommendations. As groups of people from various parts of the world immigrate to the United States, the need for healthcare workers to be more culturally competent increases. Understanding a person’s food
Culture is the beginning to being able to understand how to help that person and reduce racial and ethnic differences in patient experiences as well as other contextual circumstances in one’s life. Cultural competency in nutrition implies “not only familiarity with the food habits of a particular culture, but recognition of intra-ethnic variation within a culture as well.” The Academy of Nutrition and Dietetics and Commission on Dietetics Registration’s Code of Ethics determined that:

The dietetics practitioner provides professional services with objectivity and with respect for the unique needs and values of individuals. (a) The dietetics practitioner does not, in professional practice, discriminate against others on the basis of race, ethnicity, creed, religion, disability, gender, age, gender identity, sexual orientation, national origin, economic status, or any other legally protected category. (b) The dietetics practitioner provides services in a manner that is sensitive to cultural differences (Code of Ethics for the Profession of Dietetics, 2009).

Culturally-based food habits have a significant impact on health, so cultural competency in the areas of nutrition research, assessment, counseling, and education is important. Aside from meeting professional practice standards, the current demographic trends in the United States reflect the growing need for cultural competency. The United States has been moving toward cultural plurality, reflected in the dramatic difference in projected ethnic group growth from 2000 to 2050. It is expected that of the 49%, 90% will be in minority populations. The largest of these populations include Asians, Hispanics, and Africans (Kittler, 2004). Immigration may begin with moving abroad for educational purposes. Many students move abroad for education to the United States in particular, which receives more international students than any other country in the world. Cultural competency paired with dietary acculturation research is a powerful step toward improving the health status of immigrants. Dietary acculturation research offers “a valuable opportunity to intervene more effectively on diet and health among racial and ethnic minority groups in the United States” (Satia, 2002). Once the behaviors associated most strongly
with disease risk are identified, interventions should revolve around targeting those specific practices.

I studied abroad in Istanbul, Turkey during the spring 2014 semester, and continued to live in Istanbul for the summer. Due to this unique opportunity to live and work there for eight months, I was able to gain an immense amount of knowledge about Turkish history and culture. For this reason, I decided to study Turkish students in order to use my growing cultural competency to help them with their dietary acculturation in the United States. In terms of international students, Turkey now ranks tenth in sending college students to study in the United States each year. The number of Turkish students in the United States has increased significantly, with data indicating that 10,983 Turkish students studied in the United States between 2000-2001, a large increase from 4,978 in 1992-1993 (Kilinç, 2003). Data from the 2011-2012 school year indicates that around 11,973 Turkish students studied in the United States, making up 1.6% of the total number of international students. In 2011-2012 they ranked tenth in sending students to the United States for higher education after China, India, South Korea, Saudi Arabia, Canada, Taiwan, Japan, Vietnam, and Mexico (Institute of International Education, 2014). Despite their large presence in the United States, little is known about the dietary acculturation of this particular group.

This project is a full-circle demonstration of cultural competency development, dietary acculturation research, and nutrition intervention. It documents my personal journey from knowing almost nothing about Turkish culture to being able to offer a nutrition education program for Turkish students based on my own research of their acculturation habits. Overall, it demonstrates that working toward cultural competency is an extremely valuable and important skill for all nutrition professionals to develop. Even with a very low level of baseline knowledge,
a deep understanding of a culture outside of one’s own is possible with commitment and
determination.
Chapter 1:
Food Culture, Dietary Acculturation, and Cultural Competency

“Like spoken language, the food system contains and conveys the culture of its practitioner; it is the repository of traditions and of collective identity. It is therefore an extraordinary vehicle of self representation and of cultural exchange - a means of establishing identity, to be sure, but also the first way of entering into contact with a different culture. Eating the food of the ‘other’ is easier, it would seem, than decoding the other’s language. Far more than spoken language itself, food can serve as a mediator between different cultures” (Montanari, 2006).

This chapter focuses on introducing Turkish food by first explaining different ways of thinking about food. Food is common to all people, but the differences in the ways we obtain, prepare, eat, and think about food are intrinsic parts of the unique food cultures that we belong to and identify with. Food culture encompasses “the ways in which humans use food, including everything from how it is selected, obtained, and distributed to who prepares it, serves it, and eats it” (Kittler, 2004). Food culture includes the food-related values, beliefs, attitudes, and practices that are customary to members of a specific community. The term “cuisine” is much more narrowly defined, as a manner of preparing food or style of cooking (Merriam-Webster Dictionary, 2015). Within the larger category of Turkish food culture exist many different regional cuisines.

Enculturation

“Enculturation” is the process by which a person learns the traditions of a culture and adopts the practices and values. In terms of food, culture is learned and passed down from one generation to the next through language and social experiences, such as a Turkish parent teaching a child how to prepare a traditional dish like köfte (meatballs). While there are inter-generational patterns, food culture is not fixed; it is open-ended and changes over time. For
example, an older generation of Turkish people may make yoğurt from scratch, but their children may begin to stray from this practice as industrialization allows them to buy pre-made yoğurt at a low cost without the burden of the time and labor that goes into making it at home. In this case, the tradition of eating yoğurt is kept, but the value of making one’s own yoğurt drops significantly.

Food Culture

There are many ways to describe specific food cultures and cuisines, but none of which can completely do justice to all aspects of a particular culture’s habits. One way to classify a cuisine is based on seasoning combinations, which usually include herbs, spices, vegetables, and fat or oil. Of course not all dishes within a particular cuisine follow those patterns, and regional differences exist (Kittler, 2004).

We can also help ourselves understand the foods of a culture by categorizing them into the following groups: core, complementary, secondary, and peripheral, based on both frequency of consumption as well as use. Core or staple foods are those that are regularly included in one’s diet, usually on a daily basis. In Turkish cuisine, this could include items such as: pilav (rice and orzo cooked with butter), ekmek (fresh bread), meat, legumes, and certain vegetables like tomatoes, onions, and peppers. Complementary items often enhance the bland flavor of the core item and generally accompany core foods. For example, spices and dried fruits, like allspice and currants, are an example of complementary items that are sometimes added to Turkish pilav to improve the flavor. Secondary foods are widely but less frequently used. In Turkish food culture, this could include seasonal fruits and vegetables which are eaten only a few times per week. Peripheral foods are eaten sporadically, and often reflect individual food preferences rather than the cultural group’s habits. For example, a Turkish person who particularly enjoys eating
Domino’s pizza every other week could consider the pizza to be a peripheral food in his or her diet.

The attitudes and practices that people have surrounding meals are also important. For example, a Turkish meal may not be considered complete without the presence of a starch such as fresh bread or pilav. Additionally, there are certain orders to the way foods are typically served. For example, in Turkish food culture, çorba (soup) should be served before a main course. Also, certain foods are associated with certain meals. For example, menemen (eggs scrambled with tomatoes and peppers) is typically associated with breakfast or brunch. Other things to consider are who prepares meals, who eats the meals, what portion sizes are appropriate, and how many meals are eaten per day. For example, in Turkish culture women are generally seen as the primary cook in a household, and Islamic values of not wasting food influence people to finish all the food they are given on their plates. There may also be periods of fasting or feasting, and specific rules that go along with this practice (Kittler, 2004). In Turkey, the most notable fasting period occurs during the Muslim holy month of Ramazan (Ramadan).

From the developmental perspective of food culture, social dynamics are also seen as affecting food, eating, and nutrition. The specific social changes that directly impact food culture include: globalization, modernization, urbanization, and migration. Globalization, where local foods become available worldwide, involves mass production of once “specialty” products. Additionally, foods often reserved for only special occasions can be found year-round. For example, baklava (syrup-soaked layered pastry with nuts) can be eaten any day of the year in cities throughout Turkey, though it used to be reserved for special occasions. Modernization in terms of food relates to the shift away from home food preparation as an everyday household chore, to buying pre-made foods and eating out. In a modern Turkish grocery store, frozen
versions of dishes which were traditionally prepared at home, such as oven-ready börek (light pastry dough stuffed with cheese, meat, and/or vegetables), can be purchased. As more women work outside the home, these prepared foods become more practical. Urbanization disrupts the connection between growing, harvesting, cooking, and eating. For example, foods produced in every region of Turkey are shipped and sold in major cities such as Istanbul, Ankara, and Izmir. Regional specialties are still seen as best when consumed in their region or city of origin, but they are no longer confined to those areas. Finally, migration is the shift from original residence to a new setting, which begins the process of acculturation. Foods from one culture can slip into another culture and become part of the majority cuisine. Historically, this is particularly evident in the mixing of cultures under the Ottoman empire, which will be discussed in detail in Chapter 2: Turkish Cuisine in Historical Perspective. In modern Turkey, this phenomenon can be seen as rural to urban migration brings Turkish families from all over the country to major cities and they bring their dietary habits with them.

**Individual Dietary Habits and Food Culture**

One’s own food culture is often difficult to assess, because it can be difficult to see the pressure our own food culture places on our eating habits. Eating choices are made by what is obtainable, acceptable, and preferred. Certain foods are considered edible or inedible, and within these limits, “factors such as taste, cost, convenience, self-expression, well-being, and variety all come to play” (Kittler, 2004). Two people may have similar preferences, but only one may be able to access and afford certain items.

As with all facets of culture, food culture is at its strongest in isolation. People who are geographically connected to one another, and at the same time isolated from other cultures, form the most distinctive food cultures because they are not faced with the mixing of cultures that can
take place when different groups are in close proximity. The biggest threat to food culture comes when people move out of their cultural home and need to adapt to fit into a new environment. When it comes to changing lifestyle, food habits are often the most resistant to change when a person moves to another country. Lack of native ingredients, cost, convenience, and accessibility are a few examples of reasons why some dietary changes may be inevitable.

**Dietary Acculturation**

As stated earlier, “dietary acculturation” describes the process by which immigrants (students in this case) adopt new dietary patterns when they move from one place to another (Satia, 2010). Rather than making a linear progression, people often acculturate in a non-linear manner. There is often experimentation and fluctuation in habits before new immigrants begin to feel more comfortable in their new food environment. Shifting back and forth between traditional and adopted behaviors or customs is common. Dietary acculturation can be positive, for example, an immigrant may find a safer food supply in their new home. It can also be negative, for example, new food habits may increase risk of chronic disease. The risk of adopting unhealthy food habits may be greater because often the most easy-to-accept foods from a new culture are the ones that taste good, such as sweets and fast foods, but are not necessarily good for health. These items may quickly replace less favorable items from one’s traditional diet. People do not tend to hold onto traditional food habits that they do not actually enjoy. The foods most associated with ethnic identity are the ones that immigrants hold onto longest. These items are said to be resistant to acculturation. For example, a Turkish person in the United States may continue to prepare çay (Turkish tea) for the rest of his or her life, even though it is not part of American culture.
Dietary acculturation occurs at the micro and macro levels. At the micro level, an individual may face changes in attitudes, beliefs, and behaviors. For example, a Turkish student in America may not continue to feel obligated to finish all the food they are given on their plate because of the tendency for larger portion sizes and the lack of importance placed on finishing ones food by American people. At the macro level, groups may change in physical, economic, social, or political ways. As one might expect, dietary acculturation occurs at a slower pace for first-generation immigrants because they remain emotionally connected to their culture of origin. They may adopt some new practices or values, but also keep close ties to groups of people from their cultural background and try to maintain their traditions. Full assimilation is the transition from acculturation to a new cultural identity. An assimilated person has shed his or her cultural identity and adopted the majority culture of his or her environment. As one might expect, first generation immigrants (meaning in this case those born in another country) almost never fully assimilate. It is generally later generations that loose ties to the home country of their ancestors.

Cultural Competency

Cultural competency is “recognizing and reforming one’s attitudes, beliefs, skills, values, and levels of awareness in order to provide culturally appropriate, respectful, and relevant care and education” (Goody, 2010). Understanding the cultural significance of dietary habits helps us to relate better to clients, and be more effective by offering culturally appropriate feedback and recommendations. Culturally-based food habits have a significant impact on health, so cultural competency in the areas of nutrition research, assessment, counseling, and education is important.

To improve my own cultural competency, I aimed to follow the The Campinha-Bacote Model of Competence, which defines cultural competency as a combination of: cultural
awareness, cultural knowledge, cultural skill, cultural counter, and cultural desire (Campinha-Bacote, 1999).

Cultural awareness is defined “the deliberate, cognitive process in which health care providers become appreciative and sensitive to the values, beliefs, lifeways, practices, and problem solving strategies of clients’ cultures” (Campinha-Bacote, 1999). While living in Turkey for eight months, I was able to examine my own biases and prejudices toward Turkish culture in comparison to my own. I continue to gain cultural awareness by attending Turkish Student Association events, speaking with my Turkish friends, keeping updated on current events in Turkey, and more.

Cultural knowledge is defined as “the process of seeking and obtaining a sound educational foundation concerning the various world-views of different cultures” (Campinha-Bacote, 1999). The most significant way in which I improved my cultural knowledge was by taking the classes “Istanbul: Crossroad of Civilizations, Past and Present” and “Contemporary Issues in Turkey” which focused on the historical origins of Turkic people, the founding of modern Turkey, and modern Turkish politics and controversies. My cultural knowledge related to Turkish cuisine improved significantly through my internship at the Turkish Cultural Foundation’s Culinary Arts Center, where I learned about the historical and regional origins of Turkish cuisine from my Turkish colleagues. I enhanced my understanding of the various religious sects in Turkey by meeting with a Sunni imam, an Alevi dede, and a Sufi leader through my classes in the SU Istanbul program.

Cultural skill is “the ability to collect relevant cultural data regarding the clients’ health histories” (Campinha-Bacote, 1999). In the case of nutrition, this involves knowing the kinds of questions to ask Turkish clients regarding their health behaviors and practices. For example, a
common practice in Turkey, though not in the United States, is adding butter to cooked meat dishes. In many cases, a Turkish person would assume that you know this fact when they mention a dish from their culture, and it is critical for the dietitian to be aware of these things so that goal-setting can be more effective. I believe my biggest skill is my ability to understand and speak Turkish. I learned a great deal of Turkish while living in Turkey through classes and from coworkers and friends. I have continued to study Turkish at Syracuse and am currently enrolled in TRK 202 and meet with a language partner every week for conversation practice.

Cultural encounter is “the process which encourages healthcare providers to engage directly in cross-cultural interactions with clients from culturally diverse backgrounds” (Campinha-Bacote, 1999). Important to understand regarding this skill is that knowing a few members of a cultural group is not enough to gain understanding. In my travels in Turkey, I met a diverse variety of people including: students, farmers, nomadic shepherds, religious leaders from three different interpretations of Islam, food service workers and managers, doctors, teachers, politicians, hotel-owners, tourism managers, Kurds, police officers, bus drivers, mothers, foreign ambassadors, and more. Through conversations with hundreds of Turkish people while living in Turkey, I was able to understand many different perspectives. I am maintaining my level of cultural encounters by continuing to be involved with the Turkish Student Association at Syracuse University.

Finally, cultural desire is the cornerstone of all the above components. It reflects the motivation to “want to rather than have to engage in the process of becoming culturally aware, culturally knowledgeable, culturally skillful and familiar with cultural encounters” (Campinha-Bacote, 1999). A key point to remember is that people will often not listen to advice coming from a person who they can detect does not genuinely care about them. Cultural desire comes
from a real interest in learning as much as possible about other cultures. In my experience I have found that people love to tell you about their food culture especially; however, it often requires you taking the initiative to show them that you are seriously interested.

**Literature Review**

As stated earlier, Turkey now ranks 9th among countries that send college students to study in the United States each year, and despite their large numbers, little information exists on the dietary acculturation of this particular group.

In terms of permanent Turkish residents, according to census estimates in 2005, there were about 164,000 Turkish-Americans. Prior to 1965 the number of Turkish immigrants was limited by quotas, but included disproportionate numbers of physicians and engineers. Since then, Turkish immigration has increased, mainly in search of education or job opportunities. There are distinctly Turkish neighborhoods in many cities such as New York City, Boston, Chicago, Detroit, Los Angeles, San Francisco, and Rochester. There are also some smaller populations in New England, the Midwest, and the South, including Maryland, Virginia, Texas and Georgia. Foreign-born Turkish Americans have better high school and college graduation rates than average US citizens, and their median household income is slightly above the US average. Many Turkish-Americans are solidly middle class and have a variety of different occupations. Religion is often a large part of life for Turkish people. Many Islamic congregations are organized in the United States to serve the needs of the immigrants; however, they rarely attempt to recruit outsiders. Most Turks establish homes that are lead by the father or eldest son, with a strong network of extended family for support. Immigration to the United States often results in difficulties with maintaining these extended family relationships, but nuclear family ties remain strong. It should not be assumed that assimilation is automatic, as many try to retain
cultural ties. For many Turkish people, ethnic identity is so important that Turks who seek to become American citizens may be ostracized from their Turkish communities (Kittler, 2004).

Ilhan Kaya’s (2004) research on Turkish-American immigration history and identity formations highlights that “[Muslim Americans] differences are virtually unknown, unrecognized, and under-researched. For instance, the Turkish community in the United States is one of the least studied ethnic groups, despite their increasing number and the long history of Turkish immigration.” Through interviews with Turkish-American communities in New York City, Kaya emphasizes the diversity among Turks as similar to the diversity among Americans. As Turkey was founded less than 100 years ago, many different people fall under the category of “Turks” but the differences among them are immense. The concept of Turkishness was totally created from scratch during the foundation of the Republic of Turkey. For example, there are Kurds, Bosnians, Albanians, and others. The identification as Turkish comes along with being a citizen of Turkey and provides a sense of community among diverse people. It is noted that Turkish people tend to distinguish themselves from Arabs, and “the degree of dissociation with Arabs becomes greater in America as the American perceptions of Arabs is not very positive.” Even for religious Turks, there seems to be a desire to not be confused with Arabs, despite sharing a religion. Additionally, how Turkish-Americans identify themselves seems to be split by generation. In interviews, first generation Turks always emphasized their Turkishness, while second generation Turks emphasized being American with a Turkish background (Kaya, 2004).

For information on immigrants and dietary acculturation, there is little information about Turkish immigrants to America, so research on other groups was used to get an understanding of dietary acculturation trends. In Chinese-Americans and Chinese-Canadians, associations between western acculturation with higher fat, fruit, and vegetable consumption were identified (Satia et
Among Hispanics, more acculturated individuals consumed less ethnic foods and developed dietary habits similar to non-Hispanic whites. Additionally, greater acculturation level was associated with higher simple sugar intake and lower complex carbohydrate intake; acculturated Hispanics eat less rice and beans but more added sugars, cakes, and pastries (Bermudez et al., 2000). Duration of stay may also lead to greater dietary acculturation. Pan et al. (1999) found that immigration to the United States by Asian college students was related to increased consumption of fats, sweets, dairy products, and fruit, while meat and vegetable consumption decreased. These dietary changes were reported to occur for 85% of those who had lived in the United States for over 3 years, and 38% of those who had been in the United States for less than 1 year. In terms of retention of traditional habits, Raj et al. (1999) found that among Asian Indians, longtime residents in the United States (> 10 years) reported eating Indian foods for dinners and weekend meals, and decreasing consumption of foods high in saturated fat (butter, milk, yogurt, ghee) as compared to recent immigrants. Woodruff et al. (1997) found that highly acculturated individuals reported higher fat avoidance than those with lower acculturation, as well as stronger associations between diet and health among women.

For information on the health of Turkish immigrants in general, research done in other countries where Turkish people have immigrated to is also useful. Wrengler (2011) compared the subjective health status of Turks in Germany to native Germans. The question of whether certain determinants of health status vary for Germans and Turkish immigrants was raised. It was found that socioeconomic status and coping resources (e.g., home, religion, social support, control over life, trust in others) are key determinants of health status among Turkish immigrants in Germany. First-generation Turkish women immigrants were shown to have significantly poorer health than their male counterparts (Wrengler, 2011). In the The Turkish Diabetes Epidemiology Study
(TURDEP), the “high prevalence of diabetes in Turkish Cypriots (11% both sexes) living in Northern Cyprus and second-or third-generation Turkish living in Germany (10% in women, 8% in men)” compared to 8% in women and 6.2% in men in Turkey, underlines that a changing lifestyle can increase diabetes risk (Satman, 2002).

In a psychology study by Sohtorik and McWilliams (2011), 12 Turkish immigrants to the United States were interviewed to investigate immigration experience and mental health needs. It was found that high levels of psychological distress were associated with homesickness, lack of English language proficiency, problematic immigration status, acculturation issues, and financial problems. Particularly interesting was the finding that lack of Turkish-speaking counselors was shown to be a major deterrent for Turkish immigrants in seeking mental health services. It was suggested by these researchers that interventions for Turkish immigrants be provided outside the traditional clinical setting. Counselors are often treated like friends, and acceptance of this will foster better communication. Additionally, Baarnheilm and Ekblad (2000) found that Turkish women associate emotional problems in terms of physical symptoms, and recovery in terms of social and family relationships. This relates to Turkish culture being collectivist, with a large amount of interdependence, hospitality, respect for elders, authority, conformity, and sharing. Similarly, in research on the mental health of Turkish students coming to the United States for college education purposes, it was found that many Turkish students depend on informal support from friends and family rather than professional services, with their greatest difficulty being homesickness (Kilinç, 2003).

Nicolaou et al. (2009) identified some common values of Turkish food culture. The cooking skills of women was found to be highly valued, and dieting for health (ex: to lose weight) in the absence of a clear health problem is not taken seriously. It was concluded that
interventions on a group level should address social norms that govern food behavior, and it would be useful to emphasize existing values, such as the teachings of temperance in Islam (Nicolaou, 2008).

Guneş et al. (2012) studied Turkish college students in particular, and examined the relationship between eating habits and a high BMI in first-year university students. Noting that the frequency of overweight/obesity is increasing among freshman students in Turkey, they researched some influencing factors such as: new living arrangements, cost/economic constraints, new social/academic/sports/psychosocial environments, smoking, and adoption of a sedentary lifestyle. One of the key findings of the study was that an increased number of meals was associated with a lower risk for obesity/overweight. It was proposed that “eating regular meals may prevent snacking of energy-rich unhealthy foods between meals” and “frequent snacking might improve appetite control.” Frequent snacking (on any food eaten outside of meals) seemed to be protective against obesity/overweight in Turkish students (Guneş, 2012).

Introduced earlier, TURDEP (2002) was the first study to investigate the prevalence of diabetes and impaired glucose tolerance in Turkey, assess regional variations, and show relationships between glucose intolerance and lifestyle and physical risk factors. Prevalence of diabetes was more frequent in women than men, and among those living in urban areas rather than rural areas. Women are thought to have increased obesity and glucose intolerance due to lack of employment outside the home and lack of women’s sporting traditions. Turkish women tend to gain weight around childbearing age. Lower prevalence of obesity in rural areas, particularly in the eastern regions, may be attributed to “the more traditional lifestyle of this region, in which the economy depends on animal husbandry and limited agriculture [and the fact that] the public transport system is not well developed, and thus people are physically
conditioned.” By extrapolating results of this study onto the population census, nearly 2.6 million people in Turkey may have diabetes, and 0.8 million of them may be unaware of it. The study concluded that education is an important factor in protection from disease, and is another reason why formal education for women should be encouraged. They also added that efforts should promote “lifestyle modification toward traditional Mediterranean nutrition, increased physical activity, and weight reduction” (Satman, 2002).

The information gathered from these previous studies will inform my own approach to nutrition education for the Turkish students at Syracuse University. In summary, cultural competence is not an end goal. It is a process in which professionals continually improve their skills. Cultural competence paired with dietary acculturation research is a powerful step toward improving the health status of immigrants. Dietary acculturation research offers “a valuable opportunity to intervene more effectively on diet and health among racial and ethnic minority groups in the United States.” (Satia, 2002). Once the behaviors associated most strongly with disease risk are identified, interventions should revolve around targeting those specific practices. For Turkish people in particular, my research began with an in-depth understanding of Turkish history and culture which was made possible by living in Turkey for eight months, interning with the Turkish Cultural Foundation’s Culinary Arts Center (YESAM), and learning from various readings on the subject.
Chapter 2:

Turkish Cuisine in Historical Perspective

In order to come to a more complete understanding of the way modern Turkish people eat, and then acculturate in the American food environment, it is critical to understand the geographical and historical context in which Turkish cuisine developed. From the nomadic tribes of the Altay Mountains in Central Asia, to the Turkic principalities of Anatolia, to the Ottoman Empire (spanning from Eastern Europe to North Africa and Middle East), and finally, to the formation of the modern Turkish nation, the history behind Turkish cuisine is immense. In this chapter, I will briefly outline major factors in Turkish history that have influenced modern Turkish food culture.

Nomadic Beginnings

Turks were nomadic tribal people who originated in Central Asia around 2000 BC. Because of this, the economy and cuisine of Northern China is related to Turkish cuisine. In fact, Northern Chinese cuisine, similar to Turkish cuisine, is based on wheat rather than rice, and animal husbandry (Ögel, 2011). Additionally, the Turkish word *manti* (dumpling) is believed to be an evolved version of the Chinese word *mantou*, which describes a similar wheat-based dumpling from Northern China (Genç, 2011). Turkic tribes began to move westward from Central Asia in the early 1000s. After battling the Byzantine Empire at Manzikert in 1071 and defeating them, one particular group, the Seljuk Turks began to invade into Byzantine territory in
Anatolia (Turkish Cultural Foundation, 2015). This defeat allowed many different Turkic tribes from Central Asia and Iran to also move westward to settle in Anatolia (Ögel, 2011).

From the earliest Turkic tribes in Central Asia to later settlements in Anatolia, one thing that unified Turkish cuisine was its reliance on animal husbandry. This lifestyle became known as *yayla culture* because it was so all encompassing. It is believed that Turkic tribes brought this shepherding culture to Anatolia from Asia. Herds of goats and sheep often comprised of 200 or more animals, and involved seasonal migration. In modern Turkey, this practice is still occurring. In the Aegean and Mediterranean regions in particular, many nomadic people still bring their herds of sheep and goats to the mountain meadows in the warm weather and down to the lowland shores when it gets cold following the seasonal patterns. Of nomadic people in Turkey, it is said “as they lived in tents and made their beds, covers and clothes themselves, they did not have difficulty in migrating” (Kosay, 2011). In the past and continuing into the present, these nomadic people lived off their herds and the milk and milk products they could produce. Storing milk in animal skins, which caused it to ferment and sour, resulted in the “invention” of yoğurt, which remains a staple in Turkish diets today. When the soured milk came out without lumps, it was called “yoğurt” which comes from the Turkish verb “yoğurmak” meaning, to knead or to mould. Another important part of this nomadic cuisine was wheat and grains in general. People ate what they could grow based on the season and region, whether it be wheat, barley, or millet (Ögel, 2011). Similarly, fruits and vegetables were also eaten depending on the season and region (Kosay, 2011).

Yusuf Has Hacib and Kaşgarlı Mahmud are the two Turkish writers who gave the most information from the Selçuk Turk period. The kitchens in nomadic Turkish homes were called *aşlık* (a place where food was made); however, in modern Turkish the word for kitchen, *mutfak,*
is derived from the Arabic word *matbah*. Still, *aş* means food and *aşevi* is soup-kitchen for poor people. In Seljuk palaces, various Turkic tribal rulers had professional chefs running their kitchens and wine houses. Everyday homes of the common people also had special designated cooking areas. Some of the words used from those times have survived over 1000 years to become part of modern Turkish food vocabulary, for example, the word “bardak” meaning “glass” and the word “şiş” meaning “skewer” are just two among many words that are still in use (Genç, 2011). Even eating styles have survived from the Turkic tribal period. In the 11th century, Turks sometimes called the sofra the “tergi” (laying the sofra- “tergi urnamek”). The modern Turkish sofra describes the act of sitting around a large table-cloth on floor pillows and sharing food. This practice is common still in Turkey, especially during special occasions when traditions are highlighted. Yusuf Has Hacib described the culture surrounding the sofra or tergi during that time period:

*The house, hearth, sofra and plates should be clean. The room must be outfitted with cushions, and the food and drink should be top quality. Again, so that the guests may eat comfortably, the foods and drinks should be clean and flavorful. All that is to be eaten and drunk should compliment each other and be abundant. The guest should never run out of drink, and when one drink is finished should be immediately replenished. [...] After the food and drink, give nuts and fruit.* (Genç, 2011).

It is also known that these early Turkic nomads had ideas about nutrition. Hot and moist versus cold and dry foods were to be balanced at all times. In youth, it was recommended to eat cold things because the blood was thought to warm them up. In later adulthood, people were recommended to eat mostly hot things as the blood became cooler. It was recommended that after age 60, only hot foods be eaten. Another important message was that to remain healthy, one must take a medicine called “little”, meaning that people should always eat small amounts of food to live a long life (Genç, 2011).
One of the most notable dishes from the Turkic tribal times was tutmaç, which consists of squares of fresh pasta dough in soup. It is still eaten in some areas of the country today. For meat, people ate mostly goat and lamb. The Turks of the 11th century used etlik to describe animals fattened for slaughter, just as modern usage of etlik means a male goat with suitable meat. Horse meat consumption was beginning to decrease, though still consumed by some; in fact, “one of the Turks’ most loved meats was a fatty meat called kazı from near the horse’s stomach.” During those times, chicken and other birds, fish, and game animals such as deer or rabbit, were less desired (Genç, 2011).

Some other Turkic tribal foods should be mentioned due to their prominence in Turkish cuisine today. Yahni is originally a Persian word meaning “meat cooked in a sauce.” Meats are browned then simmered with onions, spices, beans, or other items. Borani is a vegetable dish in which vegetables are boiled then sautéed in oil or butter, and topped with garlicky yoğurt. In some cases, boranis also include some rice or bulgur to add more calories to the dish. Additionally, ayran, the common diluted salty yoğurt drink which is still consumed daily by many Turks, was made during this early tribal period. For example, the yoğurt they made in animal stomachs was thinned with water to make ayran. The process of thinning yoğurt for ayran was called yoğurt sütgerdi, meaning “the yoğurt has become like milk” (Baysal, 2011).

The decline of the Seljuk tribe began in 1243 when they were defeated by the Mongol invasion of Anatolia; however, many smaller Turkic tribes broke away from the Seljuks and began to establish principalities under Mongol power (Turkish Cultural Foundation, 2015). Turkic principalities such as Menteşe, Aydın, Saruhan, and Ottoman, became autonomous but paid tribute to a new master, the Il Khanid Mongols of Iran. By the end of the 1200s, the Mongols began to lose power and those Turkic chiefs became more independent (Kia, 2011).
One of those chiefs, the founder of the Ottoman state, Osman, fought against the Byzantine Empire from a small principality in western Anatolia. His son, Orhan, was able to capture the city of Bursa in 1326 and proclaimed it as the Ottoman capital. From this location, the Ottomans began to invade and conquer many surrounding cities of the Byzantine capital of Constantinople (the city of Constantine). In fact, they were even able to cross the Dardanelles to establish territory on the European side of the city (Kia, 2011).

**The Ottomans**

The Ottoman Principality rapidly expanded, and during the reign of Sultan Mehmet II, the Ottomans invaded Constantinople. With their win in 1453, the Ottomans established their empire, and capital “İstanbul”, in the old Byzantine Constantinople. The Ottomans ruled their empire from their capital in Istanbul from 1453 until 1923. With an empire stretching across Eastern and Central Europe, the Balkans, Anatolia, the Middle East, and Northern Africa, Ottoman palace cuisine is said to have grown alongside the empire. People from remote regions and from different ethnicities and cultures were “gathered together under a single political umbrella” (Sürückuoğlu, 2011). Cuisines of conquered people were incorporated into palace cuisine. In fact, it has been said that the “growth of the cuisine paralleled the growth of the empire”; especially as the gatherings of high-ranking palace officials became one of the most important social activities of the period (Sürückuoğlu, 2011). Sultans and other officials commanded their cooks to develop recipes that would please guests from various parts of the world, and eventually cuisines from all parts of the world were incorporated into daily palace meals.

The place from which the Ottomans most notably ruled was Topkapı Palace in Istanbul. With a mixing of elements of cuisine from all around the world, the palace cuisine grew to be
rich and diverse. That cuisine greatly influenced the development of modern Turkish cuisine. The first Sultan to rule from Topkapı Palace, Sultan Mehmet “the Conquerer” decreed official etiquette and manners for food and eating; this action made the kitchen an important place in palace life. The palace kitchens cooked for around 2,000 people every day, including servants, Janissaries, members of the Divan, civil servants, harem women, the Sultan, and his family. The amount of cooking was tripled for special occasions and feasts, such as weddings, circumcision ceremonies, and guest visits. For example, Sultan Murad III convened the 1582 circumcision ceremony for his son, Prince Mehmed. The entire festival lasted over fifty days in total. It is believed that the circumcision festival of 1582 may have been the most costly and impressive festival that the Ottomans ever organized (Terzioglu, 1995). In their display of power, the Ottomans wanted to specifically show their claim to world dominion. They did this to impress both the populace and the foreign ambassadors present during the festivities. In ways similar to other ruling powers like the Habsburgs, the Ottomans displayed exotic animals and performers from all over the world. They also held large feasts in which they could display their power through the wide range of flavors incorporated from all the lands they had conquered. Impressing power upon visitors was crucial; “the feasts […] were meticulously prepared and presented in a manner designed to impress upon the ambassadors the might and splendor of the Ottoman Empire” (Gursoy, 2004).

The Ottoman sultans lived in Topkapı Palace from 1478 until 1873. Aside from the Sultans, the palace was home to around 40,000 people at a time by the 1600s. The palace contained two kitchens, one of which was only used for preparing meals for the Sultan himself. There was also a special kitchen staff to prepare foods for the Sultan’s mother and the women of the harem. The kitchen staff had a complex hierarchy and very specific jobs. For example, the
tatlıcıs (dessert-makers) were like modern day pastry chefs, but within this group divided further into groups for specific desserts, such as people who focused solely on making Turkish helva (a confection made from tahini paste, sugar, and nuts) every day. Given the importance of pilav, there were even chefs whose only duty was to make pilav every day. The extravagance of the cooking operations within the palace are verified through kitchen accounts, which were kept in separate books from the rest of palace expenses. In these books, daily records of all the food prepared were kept along with the costs. Special “market heads” were responsible for acquiring the palace kitchen ingredients on a daily basis.

The Ottoman Empire was in decline in the 18th and 19th centuries. It was decentralized and fragmented, and its inherent conservatism did not foster innovation to keep up with the “Great Powers” like Russia, Britain, France, and Austria. These powerful countries awaited the answer to the “Eastern Question” which referred to deciding what to do when the Ottoman Empire falls and dividing the spoils to maintain the balance of power in Europe. In fact, the Ottoman Empire was often referred to as the “sick man of Europe” as people made plans for its inevitable death.

From 1839-1876 a series of reforms aimed to modernize (or in other words, westernize) the Ottoman Empire to save it from falling to the Great Powers. This period was known as the Tanzimat. There was a consolidation of modern bureaucracy, army reforms, legal reforms, and an introduction of a limited government in which the Sultan’s arbitrary demands would no longer be accepted. In 1876, the first Ottoman Constitution laid out the rules for the Sultan to follow and provided a more limited power. The first modern universities, railroads, and factories were built. The Ottoman army adopted westernized uniforms. New palaces built to mimic French decoration and architecture were built to convince the Western world that the Empire was
flourishing despite immense debts. The Ottomans even abolished the “millet” system under which people were organized and dealt with legally based on their religion. Everyone was seen as “Ottoman” and therefore equal, in the eyes of the law.

When Sultan Abdulhamid II came to power in 1876 he became the last sultan who would rule with absolute power. He abolished the Ottoman Constitution after the Ottoman army lost the Russo-Turkish war and with it a large amount of land in Europe and the Middle East. He is known for changing the ruling logic from Ottomanism to Islamism. Since the Empire was losing European territory, Abdulhamid became increasingly paranoid. He even became suspicious of his own military thinking that they would kill him, and prevented them from leaving their docks in Istanbul’s Golden Horn.

Türkiye Cumhuriyeti - The Republic of Turkey

The Sultan’s paranoia cycled to create the very thing he was afraid of. A generation of young military officers and bureaucrats created the Committee of Union and Progress (CUP) and began a revolution in 1908 to force the Sultan to reinstate the Constitution. After this 1908 revolution by the “Young Turks”, there was CUP rule within the Ottoman Empire.

In 1914, World War I began and the Ottomans ended up siding with Germany and Austria (Central Powers) to protect their straits which Russia was attempting to control. Particularly successful were the Ottoman defensive victories in the Dardanelles during the Gallipoli campaign in 1915-1916. These key victories against all odds boosted Turkish morale and nationalism, and were led by the military commander Mustafa Kemal. Despite these Ottoman defensive successes, the Central Powers lost the war and the Ottoman Empire was on the chopping block. In the Treaty of Sevres (1920), the Ottoman Empire was partitioned and the Allies who gained control of those territories promised inhabitants eventual “self-determination”.
Particularly, Greek occupation of the modern Turkish city of Izmir led to battles to regain occupied land. Mustafa Kemal became the leader of the resistance movement and established a separate government in Ankara without regard for the Ottoman Sultan. The first Turkish Grand National Assembly (GNA) convened in Ankara on April 23, 1920, and the Turks won the Greek-Turkish War in 1922. With the Treaty of Lausanne in 1923, the last Sultan was deposed and the GNA was recognized as a sovereign government in Turkey.

The Republic of Turkey was proclaimed on October 29, 1923 with Mustafa Kemal as its first president. He became known as Mustafa Kemal Atatürk (Father of the Turks) and his party, the Republican People’s Party (RPP/CHP) would rule until 1950. After ten years of almost continuous warfare, Atatürk was left with a depopulated, impoverished, multi-ethnic, multi denominational society. The population of roughly 13 million was 92% illiterate, 98% Muslim, 86% Turkish speaking, and 9% Kurdish. The new secularist (Kemalist) government began a radical modernization project. They abolished the Sultanate and Caliphate, greatly upsetting many supporters of the traditional, religious social order. Atatürk had visions of homogeneity (creating a single Turkish identity) and civilizationism (modernizing in the Western style) to maintain Turkish independence. In addition to attacks on traditional strongholds of Islam, there was a cognitive revolution that replaced Ottoman and religious symbols with European ones. For example, the Western clock and calendar were adopted, and Sunday was made the official rest day to facilitate trade with the West. Social life was secularized by giving women suffrage, adoption of a Latin alphabet, and initiation of mass education. All of these reforms were aimed at the goal of creating a “Turkish” nation to consolidate the new Republican regime. National identity as Turkish was emphasized over regional or tribal identities, a new flag was created, a daily student oath was recited, a new Turkish national anthem was pronounced, and more.
To this day, pictures of Atatürk hang in the homes of many Turkish people as well as in restaurants, and lining the city streets. He is credited for creating ‘modern Turkey’ (Wilkens-Sözen, 2014).
Chapter 3:
Modern Turkish Food and Culture

Modern Turkish Cuisine

Modern Turkish cuisine is best defined regionally, but some typical meal patterns can be seen throughout all regions of the country. Turkish people usually eat three meals per day, but if one is skipped, it is usually lunch. This is due to the large breakfasts that some Turkish people eat. Breakfast is generally served as an assortment of items such as: eggs, cheese, olives, cucumber, tomato, jams, butter, and black tea. Though it is less common now, some people still drink soup for breakfast. In fact, it is still used as a cure for a hangover after consuming large quantities of alcohol. On busy days without time to sit down for breakfast, many Turkish people can be seen eating some kind of snack item like simit (sesame and molasses crusted bread rings), pastry, or börek (thin layers of dough filled with meats, vegetables, and/or cheese, brushed with egg and butter and baked). On the weekends, brunch becomes a main meal of the day, and Turkish families often prepare elaborate feasts of breads, pastries, cheeses, butter, olives, eggs, tomatoes, cucumber, jams, honey, clotted cream, Turkish sausage, and special egg dishes like menemen (eggs scrambled with tomatoes and peppers in butter). Families or groups of friends gather for these breakfasts, sitting outside whenever they can, and remain at the table for as long as 2-3 hours. Long conversations and slow-paced eating are very common at these gatherings.
Lunch is often dictated by busy working hours; however, grabbing a fast lunch in Turkey does not mean eating what we typically think of as “fast-food.” Some of the best Turkish food is served at “point-and-shoot” style ev yemekleri (home-style cooking) restaurants where you stand in line, point at the food you want, take it from the servers, put it on your tray, pay, and then seat yourself. These “point-and-shoot” style places prepare huge batches of traditional stews, soups, salads, rice, bulgur, pasta, and daily specialty items. They also have staple items like yoğurt, ayran (yogurt drink), cacık (yogurt with cucumber, dill, and garlic), bread, and desserts. Around noon they begin to have lines forming outside as the lunch crowds wait their turn to select their meals. Once the food runs out for the day, then they will close, except a few places which will remain open for dinner. Another common lunch option is some kind of döner (spinning meat) or kebab (grilled meats) served in pide (bread) or dürüm (wrap). These almost always come with pickled vegetables on the side. Cookies and pastries are often eaten in a mid-day tea break, or when a guest comes over to a friend’s house. Offering food to guests is one of the ways in which Turkish people show hospitality, and it is often considered rude to refuse food.

A traditional dinner usually begins with a bowl of soup, which is generally mercimek (lentil), yoğurt, or tarhana (wheat) based. This is a tradition that remains from the Ottoman Empire, and is believed to aid in digestion. During hotter months, dinner may begin with some kind of cold meze dish such as yoğurtlu semizotu (purslane in garlicky yogurt) or a salad dressed with lemon and pomegranate molasses. There is always some kind of bread or grain on the table in the form of slices of a loaf of bread, rice pilaf, or bulgur. Yoğurt is typically present in some form, either as ayran, cacık, or as a side for the main course. Yoğurt is sometimes poured atop hot dishes such as spinach stew or kebab. The main dish is generally vegetables or beans simmered in a tomato or red pepper paste based sauce. Meat or poultry is often added to the vegetable
dishes in small amounts for flavoring. Fish is also commonly served as a main course, and is generally grilled or fried and served with yeşillik (fresh greens and herbs). People may be seen drinking water, ayran, soda, and sometimes beer. Dessert is often fruit, but can be some kind of specialty pastry such as baklava as well.

---

**Common Foods & Ingredients in Turkish Cuisine**

<table>
<thead>
<tr>
<th>Category</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoğurt</td>
<td>esp. with meat or vegetable dishes, cow’s milk</td>
</tr>
<tr>
<td>Wheat, rice, bulgur</td>
<td></td>
</tr>
<tr>
<td>Lamb, fish, beef, chicken (generally no pork)</td>
<td></td>
</tr>
<tr>
<td>Eggplants, peppers, onions, garlic, tomatoes, artichoke, spinach, okra</td>
<td></td>
</tr>
<tr>
<td>Stuffed vegetables (dolma)</td>
<td></td>
</tr>
<tr>
<td>Stuffed grape leaves or cabbage leaves (sarma)</td>
<td></td>
</tr>
<tr>
<td>Lentils, beans</td>
<td></td>
</tr>
<tr>
<td>Pistachios, chestnuts, almonds, hazelnuts, walnuts</td>
<td></td>
</tr>
<tr>
<td>Spices and herbs: parsley, dill, cumin, black pepper, paprika, mint, oregano, pul biber (red pepper), allspice, and thyme</td>
<td></td>
</tr>
<tr>
<td>Olives, pickled vegetables</td>
<td></td>
</tr>
<tr>
<td>Bread, pide</td>
<td></td>
</tr>
<tr>
<td>Plums, apricots, peaches, figs, grapes, pears, pomegranates, lemon</td>
<td></td>
</tr>
<tr>
<td>Black tea, coffee, anise-flavored liquor (raki)</td>
<td></td>
</tr>
<tr>
<td>Olive oil, sunflower oil, corn or nut oil</td>
<td></td>
</tr>
<tr>
<td>Desserts with sugar syrup: baklava, sekerpare, etc.</td>
<td></td>
</tr>
</tbody>
</table>

---

Like the generations before them, Turkish people still widely eat based on what is geographically and seasonally available. This is a relatively easy task to accomplish because farmer’s markets and farm stands are where people do most of their shopping. At markets, which occur nearly every day in cities (but sometimes in different locations throughout the city), seasonal produce, bulk items such as rice and beans, clothing, breads and doughs, spices, and general household items are sold. The prices at these markets, called pazar in Turkish, are much lower than those in grocery stores. The quality and freshness of the food is much higher, but items are sold at a lower price.
In addition, farmers regularly drive their produce trucks throughout cities and towns with megaphones, yelling things like “kurabiye gibi karpuz” (watermelons as sweet as cookies) or “domates domates domates” (tomatoes, tomatoes, tomatoes) to improve their profits while in turn increasing public access to fruits and vegetables. From the top floors of apartment buildings, people can be seen yelling in response and throwing down a basket with some money, into which the farmer will load fresh produce for the people to pull back into their home by a string. Additionally, there are stores that only sell fruits and vegetables, so people can easily grab a few items and quickly leave without having to enter a larger grocery store and wait in line among people with carts full of items.

Of course Turkey is not immune to globalization’s impacts on the food system. The influence of the United States’ food corporations on Turkey is especially evident. McDonalds, Kentucky Fried Chicken, Starbucks, Burger King, and Domino’s are just a few of the United States restaurant chains that occupy space in Turkey’s major cities. Coca-Cola has also had a large impact in Turkey, and if often offered at restaurants. In a clear display of their impact in Turkey, Coca-Cola in Turkey recently adopting the Turkish spelling of “Koka-Kola” for the country’s long-standing loyalty to the drink.


This does not mean that Turks are blindly submitting to American fast-food, in fact, “there is evidence that the presence of establishments like McDonald’s may actually be contributing to a revival of old-fashioned foods which have been in danger of disappearing” (Chase 1994).
Regional Cuisines

Turkey can be broken up into seven distinct regions: Marmara, Aegean, Mediterranean, Central Anatolia, Black Sea, Eastern Anatolia, and Southeast Anatolia. The residents of each region have different dietary patterns based on the region’s history, geography, and climate. Turkish people often identify strongly with their hometowns and regions, and regional dishes are a source of pride. For example, it is accepted among Turkish people that the best baklava comes from the city of Gaziantep (informally: Antep), located in Southeastern Anatolia. Many stores which sell baklava in larger cities such as Istanbul or Ankara reference Gaziantep in their names or advertising. Other common examples of foods often identified by their city of origin include: Kayseri mantısı (dumplings from Kayseri), Adana kebabi (kebab from Adana), Maraş dondurması (ice cream from Kahranmanmaraş), and Ezine beyaz peyniri (white cheese from Ezine). Regional pride is also enhanced at farmer’s markets, where fruits and vegetables are almost always labeled with the region they were grown in, like Çanakkale domates (tomatoes from Çanakkale) or Malatya kayısı (apricots from Malatya).

The Black Sea region is mountainous and forested, with fishing towns along the coasts and rivers. This region is known for its fish, especially hamsi (anchovies), which are so popular that they have even been incorporated into desserts. Other popular items from the region include: collard greens, corn, Swiss chard, white beans, cranberry beans, green beans, and hazelnuts. Corn is the staple grain here, and most bread is corn based. Highlands in this region have plenty of grazing space for animals, so milk and milk products are popular in this region. The hazelnuts
are considered to be among the best in the world, and are a major export of the region. Many Turks actually eat hazelnuts warmed up.

The Marmara region can be seen as the “culinary center” of Turkey due to Istanbul’s historical importance for cuisine. The city of Tekirdağ is also in this region, and is famous for sunflower oil, meatballs, and raki (anise-flavored liquor). The city of Bursa is in a very fertile part of this region and produces a variety of fruits, vegetables, and very high quality lamb. Chestnuts from the Bursa area are famous and often incorporated into many dishes from this region.

The Aegean region’s mild climate is ideal for growing fruits and vegetables. Villagers sell fruits, vegetables, local cheeses, olives, nuts, and crafts at markets throughout the region. The region also produces figs and grapes (many used for wine). Olive oil from this region is popular in Turkish cooking, and a typical group of dishes from the region, called zeytinyağlı (literally: with olive oil) includes vegetables and greens cooked in olive oil and served cold. Many of the cheeses of this region are also well known, particularly the beyaz peynir (white cheese), from the city of Ezine. Seafood is more popular than red meat; however, the people in this region are much higher consumers of legumes than animal protein in general.

The Mediterranean region consists of a long coastline with the Taurus Mountain range in the background. The city of Antalya is famous in this region for tourism. Piyaz (white bean, egg, and vegetable salad) from this region is famous around the country, particularly for its addition of tahini sauce. Of course, fish are also abundant in this region. Another major export from this region is jam, which comes in flavors like citrus, sour cherry, pumpkin, eggplant, apricot, rose, and more. The roses and rose water used in Turkish cooking are also from this region. Mersin is
another main city in this region and “spicy and sour (from pomegranates and sumac) are the prime tastes” of the cuisine. Unique to this region is a tropical weather climate which allows for bananas, papayas, strawberries, and avocados to grow.

Central Anatolia is a plains region used for agriculture and farming. The principal foods of this region are wheat and yoğurt. Pastırma and sucuk (dried meats and sausage) from the city of Kayseri in this region are famous around the country. Pickles and molasses are also commonly consumed in this region. Cooking in clay pots is an ancient Anatolian practice that is continued today in this region.

Eastern Anatolia is full of snow in the winter, and experiences short hot summers. This climate makes wheat and animal products the most important for Turks in this region. Dried fruits and vegetables are stored for the winter months. For example, dried eggplant is sold on a long string and stuffed with rice then “rehydrated” during the cooking process. Some other common ingredients include: bulgur, green beans, lamb, cabbage, lake fish, and apricots.

Erzurum is the largest city in this region, and is known for production of tulum cheese. The province of Elazığ is full of lakes and rivers, including the water source of the Euphrates river, and is known for its grape production. The grapes are commonly used to make red wine, such as Buzbağ.

Southeastern Anatolia borders Syria, Iraq, and Iran. The “culinary capital” of the region is the city of Gaziantep which is the “center of pistachio production in Turkey.” The baklava from this region is also said to be the best in Turkey. Arab influence in this region is also evident in the local cuisine and spices used. A kind of sweet and sour stew called tava from this region is made with lamb and fruits or vegetables like apples, quinces, and sour cherries (Ilkin, 2010).
Chapter 4:

Using three-day food records, PhotoVoice, and surveys to assess dietary acculturation among Turkish students in Istanbul and Syracuse

Methods

In this study, three-day food records, PhotoVoice, and surveys were used to compare the diets of Turkish students in Istanbul (Bahçeşehir University) and Syracuse (Syracuse University). The purpose was to assess how Turkish students in particular acculturate in the United States. This study was conducted as part of my Renee Crown Honors Program Capstone Project.

Sample

Turkish students were recruited via email and in-person conversations at Bahçeşehir University and Syracuse University in the beginning of the spring 2014 and fall 2014 semesters respectively. Emails advertising the Capstone Project and incentive were sent to students; they were instructed to contact the researcher for further instructions if they were interested in participating. Students were eligible to participate, if they were currently enrolled in an undergraduate or graduate level university program during the time of data collection. All participants in Turkey who completed all steps of the project were rewarded with a 20 TL Starbucks gift card. All participants in the United States who completed all steps of the project were rewarded with a $10 gift card to Starbucks or Chipotle, which was self-selected during the survey completion stage. Approval for this study by the Syracuse University Institutional Review Board (IRB) was not sought, but student participation was completely voluntary.

Tools
Three-day food records supplemented with digital photography

Dietary data were obtained from a three-day food record completed by each participant. Participants were asked to maintain normal eating habits and record daily intake for three days. They were instructed to choose two week-days and one weekend day (e.g. Tuesday, Wednesday, and Saturday). They were also asked to photograph their food to improve portion size estimation. Food records were sent via email to the researcher. Turkish food records were translated into English by the researcher.

PhotoVoice

PhotoVoice is a data collection method which allows researchers to see the world through the eyes of research participants; “people with cameras can record settings—as well as moments or ideas— that may not be available to health professionals or health researchers” (Wang, 1997). PhotoVoice provided an opportunity for participants to photographically document ten items (people, places, things) which they consider important to their food culture and/or eating habits. The Turkish student participants in the United States were instructed that the photographs should reflect their habits within the United States, rather than their habits in Turkey. Participants were also instructed to write a brief explanation of why they selected each item and send everything to the researcher via email.

Surveys

Online surveys were created using the Qualtrics program and sent to participants via email once they completed the three-day food records and PhotoVoice components. A separate survey was created for each location (Istanbul and Syracuse), but most questions remained the same. The survey included multiple choice as well as open-ended questions. Weight, height,
gender, and age information were collected. Questions were mainly focused on typical meal composition (What foods do you eat for breakfast on a normal day? If you do not normally eat breakfast, write “none”).) and food-related health beliefs (Are there certain foods you eat to stay healthy? If yes, please provide examples.). The survey given to participants in Syracuse also asked some additional questions related to dietary acculturation (What are the biggest changes in your diet since moving to the United States (if any)?). Both surveys are provided in the appendix.

**Nutrition Education**

A nutrition education program was planned after data analysis with the objective of encouraging Turkish students in Syracuse to retain the healthy aspects of Turkish-style eating in the United States. This program was created as a way to thank the students for participating in this study, and was informed by the data collected. The program included a healthy Turkish meal and a presentation of seven strategies for Turkish-style eating in the United States.

**Analysis**

Three-day food records were entered into the United States Department of Agriculture (USDA) “SuperTracker” program after being converted into “useable” data in Excel. This conversion from pictures and descriptions into Excel was crucial because photographs and lists of food had to be converted into data that could be tracked in SuperTracker. Complex dishes were broken into smaller parts which could then be entered individually (e.g. “karnıyarık”- a fried eggplant stuffed with ground beef- had to be entered into SuperTracker as individual items: eggplant, ground beef, tomato paste, olive oil, etc.). After entering each food record into SuperTracker, reports were generated and compared to the actual pictures of the food sent from the participants to ensure that nothing was lost when transferring the data through Excel.
SuperTracker’s software was used to generate a “Food Groups and Calories Report” for each student. These reports combined the intake from the three-day food records to generate average intake values. Results of three-day food records were compared to the Dietary Guidelines for Americans 2010 recommendations for a 2000 calorie per day diet (U.S. Department of Health and Human Services and U.S. Department of Agriculture, 2010). Survey data was analyzed using Microsoft Excel functions.

**Results & Discussion**

**Demographics**

**Sex, Age, Body Mass Index (BMI)**

At Bahçeşehir University 14 students (11 female, 3 male) completed all the tasks. Students were from a variety of different departments within the university. The average participant’s age was 22 years old (range 18-27). According to BMI calculations, 4 participants were underweight, 8 were normal weight, 1 was overweight, and 1 was obese. At Syracuse University 10 students (3 female, 7 male) completed all the tasks. The average participant’s age was 28 years old (range 21-34). The higher average age can be explained by the large number of Turkish PhD students at Syracuse University who participated. According to BMI calculations, 7 participants were normal weight, 2 were overweight, and 1 was obese.

**Identity**

Participants in Syracuse were asked to select how they identify themselves. Nine of the 10 participants selected “Turkish” as their identity, while 1 of the 10 selected “Turkish-American”. This large number of participants selecting Turkish as their main identity is not surprising because all of the participants grew up in Turkey and are only here for a limited
amount of time. None are American citizens or planning to remain in the United States past their
education. Surprisingly, the student who considered himself Turkish-American had only spent 3
months in the United States. The student in the United States the longest (7 years) still
considered himself Turkish only. These results are consistent with findings in Kaya (2004), and
the fact that most students who study abroad would not consider themselves partial citizens of
their country of study.

Nutrition Information Sources

Participants were asked to select their top source for nutrition information. In Istanbul,
internet sources were ranked highest (35.7%), followed by friends (21.4%) and family members
(21.4%). Medical professionals (14.3%) and television (7.1%) were the fourth and fifth most
popular sources of nutrition information. In Syracuse, family members were ranked highest
(50%), followed by internet sources (40%), and friends (10%). It does not come as a surprise that
the participants in this study reported such a high reliance on “informal” sources of nutrition
information like friends, family, and internet because Turkish culture is very family-centered and
collectivist. It is also consistent with findings of Kilinç (2003), stated earlier, who noted that
Turkish students coming to the United States for college depend on informal support from
friends and family rather than professional services in the case of mental health issues.

Self-Reported Physical Activity Level

In Istanbul, 36% considered themselves sedentary (little or no exercise), 50% considered
themselves lightly active (light sports or exercise 1-3 days per week), and 14% considered
themselves moderately active (moderate exercise or sports 3-5 days per week). In Syracuse, 20%
considered themselves sedentary, 50% considered themselves lightly active, and 30% considered
themselves moderately active. In both groups, no students considered themselves to be very active or super active. These results confirm the idea that physical activity is an area for improvement and should be emphasized as an important part of an overall healthy lifestyle.

Outdoor recreation time is limited in both Istanbul and Syracuse, but for different reasons. In Istanbul, green, traffic-free space is difficult to find, and gym memberships are expensive. The extensive public transportation system and high traffic volume also discourage regular exercise. Syracuse offers more options for outdoor exercise, particularly in the warmer weather; however, during the winter months students are more likely to need to access indoor exercise facilities. With this in mind, it is beneficial that students have free access to Syracuse University gyms; however, some students may not use them regularly. It would be useful for students to encourage each other to exercise together.

**Dietary Patterns**

For both Istanbul and Syracuse, the three-day food record results were combined to create an average intake of the various food groups. From the Istanbul group, the chart below indicates that grain, vegetable, and protein consumption meet the recommendations, with vegetable consumption actually about ½ serving higher than the recommendation. Dairy consumption meets about ⅔ of the recommendation. Fruit consumption was the lowest, meeting only about ¼ of the recommendation. From the Syracuse group, we can see somewhat similar patterns. In this case, grain and vegetable consumption fell slightly below the recommendations. Protein intake dropped significantly, to only about 3.5 oz per day compared to 5.5 oz per day in the Istanbul group. Dairy consumption was slightly lower among the Syracuse group and fruit consumption was slightly higher, though both are below recommendations.
Participants also subjectively ranked the food groups from the most to least in terms of amounts consumed per day. In Istanbul, the ranking from most to least was: protein, dairy, vegetables, grains, and fruit. In Syracuse, the ranking from most to least was: grains, dairy, protein, vegetables, and fruit.

The results from Istanbul suggest that although Turkish people tended to add yoğurt to many items, they are still not reaching the recommendations for dairy. Still, they considered dairy to be the second highest consumed item in their diet. A recommendation to add one more low-fat dairy serving to their daily intake could be useful, as well as education on what a serving size of dairy looks like and the number of servings to aim for on a daily basis. The low fruit consumption was consistent with what I observed while living in Turkey. Many people consume a savory breakfast, which includes vegetables like cucumbers, peppers, and tomatoes. Lunch is typically not accompanied by fruit, and neither is dinner. It seems that the most common time for fruit consumption is as a kind of dessert or snack. The best target for increasing fruit
consumption may be through encouraging it as a healthy snack alternative to chocolate or other popular snack items.

The results from Syracuse show that the largest changes occur through a drop in protein and dairy consumption. This makes sense because yoğurt, the most commonly consumed dairy product, is often used as an accompaniment to meat products. Yoğurt is often not consumed on its own. A small increase in fruit consumption may be attributed to the higher fruit consumption in the United States, especially bananas and apples sold around the campus as snacks. Vegetable and grain consumption are also slightly lower. Another possible cause of the lower consumption level of all food groups (except fruit) may be the fact that many students in Syracuse are skipping an entire meal. Many students reported skipping lunch due to lack of Turkish options on or around campus.

**Whole vs. Refined Grain Consumption**

Grain consumption patterns were broken down into whole versus refined grains. Both Istanbul and Syracuse whole grain consumption was not meeting recommendation that at least 50% of daily grain consumption should be whole grains for optimal health (about 3 servings per day). Both groups consumed below 20% whole grains (16% in Istanbul, 14% in Syracuse). This means that most students consumed 1 whole grain serving for every 5 refined grains serving.

The most commonly consumed grains in Turkey are bread and rice, which are generally served as white bread and white rice pilav. While there are more whole grain options in the United States, particularly when eating in restaurants, participants tended to select refined grains. Whole grains were most often consumed in the form of oatmeal and bulgur. There seems to be an overall lack of encouragement of whole grain consumption. In order to improve whole
grain consumption, students should be educated on why whole grains are healthier than refined grains, and learn how to find and select them.

**Total Calories and Empty Calories**

Total calories were analyzed to determine empty calorie intake in both locations. Average daily caloric intake in Istanbul was 1877 kcal (range: 1153- 2752 calories/day). Empty calories accounted for 30.6% of daily calorie consumption, which is about 574 calories coming from solid fats and added sugars per day. When further broken down, the data revealed that calories from added fat contributed about 432 calories per day and added sugar contributed much less at only about 127 calories per day.

In Syracuse, average daily caloric intake was 1471 kcal (range: 978- 2331). Empty calories accounted for slightly less of calories, at about 26.1%, which is about 383 calories coming from solid fats and added sugars per day (279 from solid fats, 104 from added sugars). Higher added sugar content of food was also commented on by one student, who claimed that “All foods contain sugar and it makes bad the food I like.”

The low overall calorie intake in Syracuse can be attributed to the many students who skip lunch, or perhaps under-reporting in the three-day food records.

**Meals at Home vs. Outside**

Participants estimated number of meals eaten at home vs. outside per week. In Istanbul, the average number of meals outside the home was about 9 per week. The number was much lower in Syracuse at about 4 per week. One participant in Syracuse wrote “There are not as many choices for me when it comes to eating outside in America.” “Finding a Turkish restaurant” in general was cited as a common challenge among participants.
Many participants in Istanbul mentioned lunch as a common meal for eating out during the week. This would account for 5 of the 9 total meals eaten out. Considering the fact that there were 5 less meals eaten outside in Syracuse, skipping lunch might be a factor contributing to the lower number of meals outside the home. Eating less meals outside is not a problem; however, skipping lunch due to lack of Turkish options is a place where nutrition education on easy, healthy lunch options could be helpful.

**Favorite Foods**

Participants named their favorite foods, and the results were compiled to find commonalities. In Istanbul, the top favorite foods were: beef, chicken, manti, karniyarik, sarma, rice, and pizza. In Syracuse, the top favorite foods were beef, chicken, börek, and red lentil soup. In both locations, animal proteins took up the top two choices for favorite foods. Meat has historically been seen as a food associated with wealth, and red meat consumption is very high in Turkey. Due to the fact that lower meat consumption is associated with lower risk of chronic disease and better for the environment, it could be useful to teach Turkish students about plant-based proteins as an alternative protein source.

**Typical Breakfast**

Participants named typical breakfast foods that they consume. In Istanbul and Syracuse, the most commonly named item was cheese. In Istanbul, students also frequently listed olives, tea, bread, eggs, tomato, cucumber, salami, yoğurt, and “none”. In Syracuse, students listed tomato, eggs, olives, milk, cereal, bread, tea, sucuk, honey, and nutella. On breakfast in Syracuse, one student said “I used to have breakfast with eggs and milk in Turkey, I still do that.”
Typical Lunch

Participants named typical lunch foods. In Istanbul the most common lunch items included: chicken, rice, soup, salad, beef, vegetables, and sandwiches. In Syracuse, the most common lunch item was a sandwich, followed by fruit, “no lunch”, salad, Marshall Street restaurants (Chipotle, King David’s, Subway), and pizza. The common lunch items in Istanbul reflect common items found in Turkish cafeterias or ev yemekleri restaurants. The items in Syracuse reflect what is available on the Syracuse University campus, with the inclusion of “none” reflecting the students who choose not to eat anything due to lack of Turkish options. On lunch, one student said: “Breakfast and dinner habits still continue at most, but lunch changed.”

Typical Dinner

Participants named typical dinner foods. In Istanbul, the most common dinner items included: beef, salad, vegetables, chicken, soup, rice, pasta, “mother’s cooking”, yoğurt, and fish. In Syracuse, the most common dinner items included: rice, beef, chicken, soup, vegetables, yoğurt, pasta, salad, fish, and fruit juice. There was considerable overlap in the items listed for dinner, which reflects the idea that meals cooked at home are more reflective of traditional eating habits as compared to those eaten outside the home.

Typical Snack

Participants named typical snack foods. In both Istanbul and Syracuse chocolate ranked as the top snack food choice. In Istanbul, other common snack foods included: fresh fruit, nuts, and dried fruit. In Syracuse, other common snack foods included: cookies, nuts, fresh fruit, dried fruit, and chips. Interestingly, snack preferences remained the same except for the addition of
cookies and chips in the Syracuse group. Due to the high number of empty calories consumed among both groups, healthy alternative snack options should be discussed.

Core, Secondary, and Periphery Foods

Participants were asked to name “core foods” (those which they eat daily, or almost daily), “secondary foods” (those which they consume a few times a week, but not daily), and “periphery foods” (those which they eat only occasionally). The results are displayed in the chart below.

The chart shows considerable overlap. In core foods, salad, soup, chicken, yogurt, eggs, and cheese are listed in both locations. In secondary foods, fish, beef, rice, and pasta are all listed. Both groups included vegetables as a peripheral food, despite both groups consuming almost the target daily intake for vegetables, and the inclusion of “salad” in the core foods section. Interesting is the appearance of pizza on the periphery foods for the Syracuse, where it is not present at all in the Istanbul group. After attending multiple Turkish Language Tables at Syracuse University sponsored by the Turkish Student Association, the Moynihan Institute of Global Affairs, and the Department of Literatures, Languages, and Linguistics, I was able to gain
insight into this issue. For many events, pizza and soda are the provided “free” food options. While pizza is often the standard, easy food to order in the United States, it would be useful to find a healthier, more culturally competent, meal for the students who attend. I also often heard complaints about pizza informally. For example, one student sent me the following email and picture:

“This is my dinner today. Now, you can understand how much an ordinary Turkish student suffers in Syracuse. Delicious Turkish food gets replaced by oily cheese pizza.” (SS)

Food and Health

Foods used to treat illness

Participants were asked if they use food to treat illnesses, and to provide examples. Among participants in Istanbul, the most commonly cited food used to treat illness was tea. The most popular type of tea mentioned was lemon mint tea, followed by fruit herbal tea, linden tea, tea with honey and lemon, and ginger tea. Orange juice, lemon juice, and milk with honey were also listed. The illnesses that these remedies were used for included colds, stomach aches, and sore throats. Among participants in Syracuse, the answers included even more types of remedies.
Participants mentioned teas and lemon juice for mild colds, stomach aches, and sore throats. Dry apricots were cited as a way to aid digestion. Clove was mentioned as a toothache remedy. 

*Pekmez* (grape molasses) was mentioned as a cure for anemia. Thyme water as a way to ease a stomach ache was mentioned. One reason that participants in Syracuse may have named so many different items is that they may have come to realize the differences between Turkish traditional medicine and United States medicine due to their exposure to United States culture.

**Foods eaten for health purposes**

Participants were asked if they eat certain foods to stay healthy. In Istanbul, the most common answers included: fruit, salad, and “none”. In Syracuse, the most common answers included: fruit, vegetables, milk, *yoğurt*, and fish. These results show that participants understand the health value of foods like fruits, vegetables, dairy, and fish, but may need an intervention to learn how to add these items into their diets more.

**Foods avoided for health purposes**

Participants were asked if they avoid certain foods that they believe are unhealthy. In Istanbul, the most common answers included: french fries, fast food, “none”, fatty foods, hamburgers, Kentucky Fried Chicken (KFC), chips, and soda. In Syracuse, the most common answers included: pizza, frozen foods, fried foods, fast food, “none”, and chips. Still, many students’ three-day food records showed that they consume these foods despite considering them to be unhealthy. Barriers to healthier food options are an area for further research; however, an immediate way to address this issue is to discuss healthy options for meals during a nutrition education program.

**Dietary Acculturation in Syracuse**
Participants were asked to describe the biggest changes and changes to their diets since moving to the United States (if any). Students answers reflected a variety of different concerns.

Many students mentioned difficulty finding halal foods.

“I started to be more careful in buying food due to the religious concerns.”

“Since I eat only halal food, my choices of restaurants and food that I can eat outside is very limited. I don’t eat lunch. I cook most of the Turkish food here.”

“[I have difficulty finding] red meat. Because of my religious belief how animal is cut is important. It should be cut according to islamic rules. [Also] I can’t eat soup regularly :(“

Many students commented on the lack of Turkish foods.

“[I am] not able to find Turkish style restaurants, so finding a place to eat kebab (Turkish grill) is a big challenge”

“I make my bread here. I used to have simit and poğaca a lot in Turkey for breakfast but there [are] not those foods in America. Also I eat outside less in America.”

“I do not find tasty Turkish food nearby that I can easily reach in restaurant in Turkey.”

“It is not easy to find real Turkish food here.”

These statements reflect a need for nutrition education on how to create healthy Turkish dishes in the United States, since there is not a place to consistently find Turkish food outside of the home. They also reflect the need for a better system of food labeling for halal foods in restaurants and stores.

Participants were asked to comment on any food habits retained from Turkey.

Answers were extremely varied:

“I have retained most of my eating habits from Turkey.”

“I used to eat soup for lunch in Turkey. I don’t eat in America.”

“I used to eat rice, salad, hamburger every day for lunch in Turkey, and I do that in America also.

“I don’t have eating habits”
“I eat yoğurt a lot as I used to do in Turkey.”

“I used to eat fish at least once a week. I can still do that :)”

Participants were asked to name foods that they typically eat in Turkey, but do not eat in the United States. The top response was **döner**, with 8 of 10 students listing it. 5 of the 10 students listed kebab as a food they do not eat in the United States. **Kokoreç** was also a popular answer, with 3 of 10 students listing it. Other foods listed included: **işkembe** (tripe) soup, **sarma**, kebab, börek, fresh vegetables, fresh fish, simit, poğaça, pide, mantı, Turkish desserts, ciğ kofte, midye, lahmacun, tatuni, dried beans, and **pilav**.

One student described the situation in the United States, saying:

“There are not many things not available in America that I eat normally in Turkey. So, I could eat lahmacun, börek, döner, baklava and many other well-known Turkish food - with a possible sacrifice in taste- if I dare to spend a good amount of time and money in US. There are other more local items or food that are neither transported long distances or nor allowed such as hosmerim, maras ice cream and iskembe soup but I would only eat them occasionally in Turkey anyway.”

**Dietary Satisfaction**

Participants in Syracuse were asked to rate their satisfaction with their current dietary habits. Results displayed in the graph below show that 6 of the 10 students are happy or very happy with their current eating habits, while 3 of the 10 were neutral and 1 was unhappy. It is unclear whether that is a result of the Syracuse environment, or if it has do to with another factor. It would be useful to understand how satisfaction changes between countries.
Caption: “Turkish Coffee is special for me. Every sip has a different story. I’m thinking romantically.” (SG)

“Turkish coffee has a great importance in our daily life. It is served also in special days, such as, when couples decide to get married and their families confirm it. Fortune telling is a common activity after drinking Turkish coffee, so people socialize more.” (OK)

“We have a special technique when we are preparing a Turkish coffee. It is generally served with Turkish delight and water, and it is a great way for me to feel relaxed” (ZD)

“Kahve olmadan uyanamadığım için her sabah bir kupa kahve içiyorum” (DB)

Translation: Without coffee I would not wake up. I drink a cup of coffee every morning.
Caption: “My mom! Wherever I go, even if it is the best restaurant in the world, nothing is better than my mom’s food!” (ZD)

“My kitchen is the most important place to cook and eat my meals. My mum always cooks for me” (BD)

“My mother always cooks meals at our home. She prepares breakfast for my sister in the morning at first. After my sister goes to school I get up, and my mother prepare my breakfast, too.” (GY)

“My mom- she is the best chef in the world!!!” (BB)

“I couldn’t find [a photo of my mom] in my computer and she isn’t in Istanbul. I have had some difficulties with preparing food since she’s gone. I understand her in some ways about homemaking. I love her and her food.” (SK)
Caption: Veee annem.. Benim annem gibi özellikle ev hanımları, her akşam sofraya yemeğin konulmasına katkısı olan 1 numaralı insanlar! Çalışan hanımlar için de durum pek farklı değil.Onlar da iş çıkışı koştura koştura mutfağa giriyorlar yemek yapmak için.Ne yediğimiz kadar yemeğin nasıl ve kim tarafından yapıldığı da önemli tabi bizim için.Bu nedenle yemek kültürüümüzün ayrılmaz parçası annelerdir,annelerin yaptığı yemek kimseninkine benzemez :) (NT)

Translation: And my mom…My mom, like other housewives, put a meal on the table every evening. This is why they are the #1 people! For working women, things are not much different. They rush out of work and into the kitchen to make a meal. What we eat, and how much food is needed for each person, is also important for us. Therefore, mothers are an integral part of our food culture, because not just anyone can imitate our mother’s cooking!

Caption: "Merhabalar :) ,ilk olarak kahvaltı sofrasıyla başlamak istiyorum..Bu resmi seçtim, çünkü aileyle sofraya beraber oturmak yemek kültürüümüzün büyük bir parçasını
Hello. First I want to start with the breakfast table. I chose this picture because sitting with the family at the table makes up a big part of our culture. Our relatives and us gather once or twice a month for breakfast.

Caption: “I can only eat a cookie-coffe kind of breakfast for a few days. After a few days, I would ask for a Turkish kind of breakfast. It generally includes: eggs, tomatoes, cucumbers, cheese, olives, and honey. Whenever I go on a vacation to another country, Turkish breakfast is the number one thing that I miss back at home.” (ZD)

“A street full of cafe’s for breakfast. It’s in Besiktas. At least once a week I have a breakfast with my friends.” (SK)
Ev Yemekleri - Turkish Home Cooking Restaurants

Caption (top): “You can almost find these kinds of local restaurants everywhere in Istanbul. They generally cook like home-made food.” (BD)

Caption (bottom): “A place that I always go to eat in Besiktas. [They] make homemade food for people to have good nutrition” (BG)

“Balkan Lokantasi [is] a home-meal restaurant. I generally eat my lunch here in weekdays. It’s healthier than fast food restaurants.” (DY)
Caption: “Unarguably, Turkish Baklava is my favorite dessert. As I stated in the food record, I eat a portion of pistachio baklava once in a week.” (OU)

“The best dessert I think. I never say no to it.” (SG)

“Baklava is definitely a Turkish dessert, not Greek :))” (BD)
**Caption:** “Sokak simidi de kesinlikle Türk yemek kültürünün vazgeçilmezlerinden. Benim için önemi büyük çünkü sabah kahvaltısı yapamadığım zamanlarda veya akşamüstü çayla beraber atıştırmalık olarak simit yiyorum.” (NT)

**Translation:** The street carts of Turkish food culture are certainly indispensable. They are of great importance to me when I cannot get breakfast in the morning, or in the afternoo nwhen I eat simit as a snack along with tea.”

---

**Caption:** Bu da ara sokaklardaki bir manav. Her ne kadar çoğu insan artık marketlerden alışveriş yapsa da sokak aralarındaki manavlarda sebzeler ve meyveler hem daha taze hem de daha hesaplı. Bu yüzden önemini koruyor. (NT)

**Translation:** This is a green-grocer (fruit/vegetable seller) in the street. Although now most people shop from the market, the fruits and vegetables in the street are fresher and more affordable. So, these remain important.

“This is the best choice to buy fresh vegetables, fruits etc and also cheap. In Turkey you can encounter the bazaar everyday but different locations.” (SG)

“This is one of the traditional farmers market in Üsküdar. It is open on every Friday and I generally buy fresh vegetables like tomatoes, cucumber, potatoes, pepper, etc from here.” (OU)
“It’s an indispensable thing. Every time, everywhere I should drink it. During breakfast, after lunch, dinner, when I’m at college, home etc. This is also one of the most favorite drinks among Turkish people. Try it when you daydream about Istanbul.” (SG)

The same task was completed by Turkish participants in Syracuse. Of the 10 total students, 8 included bread (or a picture of their bread machine). The second most popular items included yoğurt and Turkish tea (or teapot) with 5 students mentioning them. The third most popular items included Turkish friends/roommates and nuts/nut butters. Other items which appeared in at least 2 students’ lists included: Turkish breakfast, pilav, white cheese, tost (white cheese on bread), spices, roasted chicken with vegetable dishes, paninis, milk, kitchen, eggs, coffee, and bananas.
Caption: “We don't use bread made in outside(market).(they include too many additives) I make bread in home with bread-machine. In Turkey we don't make bread in home.” (MY)

“I almost always make our own bread for the last five years.” (HK)
**Caption:** “My roommate makes our own yoğurt, and it is mostly in every dinner.” (HK)

**Caption:** “This is the closest yoghurt to the one that I eat in Turkey. I always have it in my fridge.” (SK)

“We prepare traditional foods in home. for ex: yoğurt is very important in our diet. in the market it is very expensive and usually include additive. Because of [this] we buy two gallon milk per week. one of is for drinking one of is for make yoghurt.” (MY)
Tea

Caption: “These are my favorite appliances that I make tea and toast in” (HK)

“Black tea must be every time like American's coffee. I didn't like coffee yet.” (MY)

“I love cay, I am addicted to Turkish Tea, indeed :)” (HK)

Turkish friends/roommates

Caption: “Fatih. We have been roommates for 6 years and he is a great cook. We cook together and eat together most of the time.” (HK)

“There are too many Turkish friends in Syracuse. we meet once a week with them. at that time our foods have too high calories :) we prepare a lot of traditional foods (mantı, pide, içli köfte, cake, apple pie)” (MY)
The PhotoVoice data shows that the Istanbul group was able to offer a much more privileged view into their food culture. There were much more diverse answers, and basic items like bread and yogurt were completely left out, despite being very commonly consumed in Turkish culture. This may be a result of the fact that those items are so widely consumed that the participants saw them as too obvious to include. The items chosen by participants in Syracuse offered insight into the most core and valued aspects of food culture that were retained. Food like bread, yogurt, tea, and family/friends are the quintessential aspects of Turkish food culture. Interestingly, many of the participants in Syracuse made the comment that it was the first time living out of their family home, and they had to learn to cook without their mother’s food available.

**Conclusion**

This study was an analysis of the experience of dietary acculturation among Turkish students when they live in Syracuse as compared to the eating habits of their peers in Istanbul. The purpose of the study was to find some of the most prevalent dietary habits which could negatively impact health, in order to plan an appropriate dietary intervention which would focus on helping Turkish students in Syracuse make healthy behavior changes. Dietary habits were analyzed and considered with the 2010 Dietary Guidelines for Americans, typical Turkish eating habits and culture, and what is realistic for an international student at Syracuse University, in mind.

It is clear that dietary acculturation is a very individual experience. While people from the same country may face the same difficulties in finding their traditional food items, there are
many factors such as time, money, duration of stay, and motivation that determine how any
individual will react in a new food environment. Still, having an understanding about the food
culture that a person comes from is a huge step in being able to offer that person help. No food
culture or way of eating is perfect. It should be emphasized that there are certain eating practices
which are much healthier than others, and those should be the ones which immigrants to the
United States should be encouraged to retain.

The goal of my research was to find the most prevalent issues that could be addressed in
the Syracuse group. The Istanbul participants were critical to my research because they gave me
the background cultural knowledge with which I was able to compare the diets of the Syracuse
participants to. The results of this research provide useful insight into Turkish food culture as it
exists in Istanbul, and as it changes in Syracuse. There were seven key areas that I found to be
the most prevalent and realistic for nutrition intervention, including: low level of cooking at
home, low fruit and vegetable intake, low whole grain intake, decreased consumption of Turkish
food, low protein consumption, skipping meals (esp. lunch), and poor access to and knowledge
about local food options. The details of how these issues were addressed are discussed in the
following section, Chapter 5: Turkish Student Nutrition Education.

This research has important implications for dietetics practice. It shows the importance of
learning about food culture from the target population, and the effectiveness of a full cultural
immersion to learn about all aspects of a culture that might impact dietary patterns. Working
within your home country to help migrants from a food culture that you have an understanding
about puts you in a very unique position to help. With knowledge about your own food system,
you can think creatively about how another food culture might be re-created. This insider
knowledge of your own food culture is also a critical piece of helping migrants because you can
think of the best places to shop, the foods that might replace a certain food from another culture, the best brands, and more.

Nutrition students and practitioners should be encouraged to take opportunities to become more culturally competent whenever possible, even if they cannot physically live in another country to learn about another food culture directly. I have found that the most important way to learn and begin to truly understand has been through continued efforts to attend cultural events, make friends from different cultures, and always seek out as many viewpoints as possible. It should be emphasized that cultural competence is not a luxury or optional skill to develop, but rather imperative for effective nutrition professionals. Additionally, attention should be paid to minority groups of migrants who may not receive as much support as larger groups do.
Chapter 5:

Turkish Student Nutrition Education

“Studies investigating the association of migration and acculturation with disease risk should identify and intervene on those steps in the acculturation process that are most strongly associated with unhealthful dietary changes” (Satia, 2002).

Nutrition education for both individuals and groups is dependent on intercultural communication skills. Misunderstanding of a culture can cause a nutrition education program to fail with one group, even if it worked well with another. The importance of cultural competency cannot be underestimated. My nutrition education program for Turkish students was guided by the research I conducted in both Istanbul and Syracuse, and the cultural competency I have started to gain about Turkish food culture. I also planned the program with input from multiple Turkish friends, and constantly asked for feedback and help when developing the program. For the intervention, I thought it was important to bring the Turkish student community all together since community ties are very important to them, and the group can help to motivate each other as they often have gatherings every week for some kind of social activity. This was also clear when the research participants mentioned the importance of family and friends in asking for nutrition advice and maintaining their food culture. The reason I scheduled the event as a dinner rather than just a lecture was because I wanted to cook them a Turkish meal to give them a taste of home that might inspire them to also cook their own Turkish food in America, and I knew that a less formal setting was preferred based on input from my Turkish friends.

Equally important was having a Turkish community leader to help me with this process; “seeking the respect, trust, and endorsement of influential persons within the target audience for a particular nutrition education program can open intercultural communication channels
otherwise limited to the formal interactions reserved for strangers” (Kittler, 2012). For me, this person was Turkish PhD student Haci Karataş, who has been involved with the Turkish Student Association for over six years, and is a very influential member of the community. He introduced me to many of the Turkish people on campus, and was therefore serving as a bridge for me to join the community and be seen as an ally. He also encouraged Turkish students to attend the event who I had not met in the past, and likely would not have come without his endorsement.

During the presentation I gave main ideas in both English and Turkish to ensure that there was a greater understanding of what I was explaining. There are seven main areas which I focused on in my nutrition education program, based on the seven main issues identified in my research:

1. **Use time-saving ingredients to cook at home** *(Turkish: Zaman kazanmak için evde çabuk yapabileceğiniz yemekler pişirin).* This tip encouraged Turkish students to adopt the healthy habit of cooking at home, especially learning to make quick versions of their favorite meals. I gave the example of “quick whole-wheat pide” made with pre-made whole wheat dough plus toppings (vegetables, cheese, meat), which can be assembled quickly then left to bake in the oven. This recipe was also created with the idea of replacing pizza with something healthier and more related to Turkish food culture. I also gave a list of time-saving ingredients like canned beans, pre-made hummus, frozen falafels, fresh bread/pitas from the bakery area, frozen rice, and pre-cooked lentils.

2. **Make half your grains whole** *(Turkish: Her gün tam buğdaylı gıdalar yiyin. Mesela eğer altı defa ekmek yiyorsanız. ... üçü tam buğday olmalı).* I gave example of sources of whole grains and pointed out some common Turkish sources of refined grains, like pide and börek. I also discussed some basic reasons why whole grains are important, using an
image of a whole versus refined grain to discuss the vitamin, mineral, and fiber content. I encouraged the Turkish people to make easy substitutions for at least half of their daily intake like brown rice, quinoa, or bulgur instead of white rice, and whole wheat bread instead of white bread. I also taught them to read a food label to check for a high fiber content and that the first ingredient is a whole grain. I made them aware that American food companies are clever in producing brown bread products that appear to be whole grains, but are actually not, so that they will choose more carefully.

3. **Eat fruits and vegetables in every meal** (*Turkish: Her öğün meyve ve sebze yiyin*). I briefly explained why fruits and vegetables are healthy due to their high nutrient density. I encouraged that they shop for seasonal, local fruits and vegetables at the farmer’s market, and gave information about what 1 serving of fruits or vegetables is. Rather than emphasizing a daily total, I told them to try to make sure there is at least 1 fruit or vegetable in every meal, and to have variety over a week. I also gave examples of sample Turkish style meals that include plenty of fruits and vegetables, such as menemen for breakfast, lentil salad with whole wheat pita for lunch, and red lentil soup with chickpea stew for dinner. I also encouraged them to try to add fruit and vegetables into dessert with items like dark chocolate and pistachio covered dried figs, or cezerye (sweet carrot and nut bars covered in coconut).

4. **Add plant-based proteins** (*Turkish: Et dışında protein sağlayan gıdalar yiyin*). I encouraged the Turkish people to replace some animal protein with plant-based protein, highlighting that they are nutritionally adequate and better for the environment. I gave examples of high sources of plant-based protein in general, and also some examples of Turkish foods high in plant-based protein such as: red lentil soup, pistachios, mercimek
köftesi, walnuts, nohut yemeği, kuru fasulye, ıspanak yemeği, bulgur. I also mentioned that low-fat Turkish yoğurt is also a great protein source, and though it is not plant-based, is a better choice than meat.

5. **Invest in a Turkish pantry** *(Turkish: Her zaman Türk yemek malzemelerini mutfağınızda bulundurun).* I discussed the convenience of having basic ingredients at home to make cooking easier, and also the health benefits of spices. I included a list of Turkish spices with prices, and also encouraged them to join grocery store “clubs” and wait for sales before stocking their pantry.

6. **Always pack a healthy snack** *(Turkish: Çantanızda her zaman sağlıklı atıştırmalıklar taşıyn).* I discussed the importance of never being too hungry so that they can make healthier choices throughout the day. I gave two sample ideas, including a Turkish trail mix (dried figs, dried apricots, walnuts, pistachios, dark chocolate chips) and hummus with spices and cut vegetables or crackers for dipping.

7. **Use your resources** *(Turkish: Syracuse'daki yemek yiyebileceğiniz ya da alışveriș yapabileceğiniz yerleri öğrenin. Yardıma ihtiyacınız olduğunda arkadaşlarınızla sorun).* I encouraged them to share car rides, ingredients, and ideas with one another to make their lives easier, I also encouraged that they adopt some of the healthy food habits of Americans in Syracuse by going to places like the Regional Farmer’s Market, Syracuse Real Food Co-Op, Samir’s Imported Goods, Grindstone Farm, and more.

I received very positive feedback during and after the Turkish dinner and nutrition education event. Reactions from Turkish students emphasized the effectiveness of my intervention and appreciation from the Turkish students. For example, one student said “I was skeptical of your dinner program at first, thinking that an American could not make Turkish
food. Then when I saw the menu I thought it ‘okay, maybe’. When I tasted the food I thought ‘wow she got it!’” Another mentioned that the ideas presented stayed in her mind, explaining that “When my friend and I left the dinner we kept talking about how motivated we feel to change our habits. I keep thinking about whether I am having a whole grain or not.”

This presentation brought my project into action. It allowed me to use everything that I have learned to give something back to the Turkish students I have been working with over the past year and a half. As a result of this, I hope that the Turkish students feel more connected to the campus community and prepared to make healthier eating choices. I feel fortunate to have been able to have the all experiences that made this project in both personal and professional growth possible.
Chapter 6:
Anatolian Kitchen Blog

I wanted to be able to share the information I have learned about Turkish cuisine with a wider audience. To achieve this goal, I created a blog called Anatolian Kitchen on WordPress at anatolian-kitchen.com. The blog consists of Turkish recipes and historical and/or cultural information behind them. I have tied in nutrition by altering many of the recipes to be healthier, yet still taste similar to the traditional recipe. I also offer some information about how to navigate Turkish cuisine for travelers, language tips, and more. I also have an Instagram account associated with the blog, called anatoliankitchen.

I have received very positive reactions to the blog. It has received multiple thousands of viewers over the past year. Also, the Turkish Cultural Foundation has praised my work and helped to share it. The Syracuse University Abroad staff has also been very enthusiastic and shared the blog on the SU Istanbul home page. I have also had an article and recipe published in January 2015 online on the Academy of Nutrition and Dietetics Food & Nutrition Magazine Blog Stone Soup, called Turkish Red Lentil Soup which can be found at foodandnutrition.org. I was also recently contacted by the Food & Nutrition Magazine editors to work to test one of my Turkish recipes and work to develop it for an upcoming issue. The recipe is for kisir, and will be featured in an article about how to use whole grains in unexpected ways.

I will be living in Istanbul next year while I complete the online portion of my M.S. in Nutrition and Dietetic Internship with the College of St. Elizabeth, and plan to continue to work on my blog while I am there.
Turkish Red Lentil Soup
BY BRITTANY PETERSON

Published: 01/21/2015

Soup (porba in Turkish) is a staple item in Turkish cuisine, eaten in various regions of the country, among all social classes, and at all stages in life. Turkish soups are generally based on legumes or wheat. The most popular soup consists of pureed lentils with vegetables.

Soup is eaten for a variety of reasons in Turkey. Ottoman sultans were known to enjoy soup before meals to aid in digestion and stimulate the appetite, a practice that many Turkish people continue to this day. Soup is also eaten for economic reasons, because it is inexpensive and full of nutrients. In Istanbul, for about the equivalent of one U.S. dollar, you can buy a generous bowl of soup with plenty of fresh bread to dip into it. Some Turkish people even consume soup for breakfast. As in many cultures around the world, soup is also believed to have healing properties.

As the weather gets colder, making a large batch of Turkish red lentil soup is a satisfying and easy way to add more vegetables into your diet. By making this soup on your own, you can...
Works Cited


Appendix 1: Complete Surveys

### Survey taken by Turkish students at Bahçeşehir University, Istanbul

1. Personal information (name, email address, age, height, weight)
2. What is your favorite food? (You may list more than one)
3. What foods do you eat for breakfast on a normal day? (If you do not normally eat breakfast, write "none")
4. What foods do you eat for lunch on a normal day? (If you do not normally eat lunch, write "none")
5. What foods do you eat for dinner on a normal day? (If you do not normally eat dinner, write "none")
6. What foods do you eat as snack on a normal day? (If you do not normally eat snacks, write "none")
7. What foods do you consider core foods in your diet? (Core foods are those that you eat daily, or almost daily)
8. What foods do you consider secondary foods in your diet? (Secondary foods are those that you consume a few times a week, but not daily)
9. What foods do you consider periphery foods in your diet? (Periphery foods are foods you eat only occasionally)
10. What is your religious preference?
11. Does your religious preference influence your diet? If yes, please explain.
12. Estimate how many meals per week you consume outside of your home (restaurants, university cafe, take-out, fast food, street vendors, etc.):
13. Are there certain foods you eat to stay healthy? If yes, please provide examples.
14. Are there certain foods you avoid because you believe they are unhealthy? If yes, please provide examples.
15. Have you noticed periods in your life where your diet has significantly changed? If yes, please explain.
16. Do you use food to treat illnesses (Ex: lemon juice for sore throat)? If yes, please provide examples.
17. Where do you get most of your information about nutrition? (Ex: what to eat, what not to eat, which foods are healthy, etc.)
18. Please arrange the food groups from MOST to LEAST in terms of the amounts you consume per day. (Ex: if your diet is high in grains, put that first. If you eat vegetables less than any of the other food groups, put that last).
19. Please choose the physical activity level that describes you on a normal week.

### Survey taken by Turkish students at Syracuse University, New York

1. Personal information (name, email address, age, height, weight)
2. How long have you been living in America?
3. How do you identify yourself? (Turkish, America, Turkish-America, Other)
4. What language do you prefer to speak, read, and write? (Turkish or English)
5. When you go out in America, you prefer to eat at ____________. 
6. What is your favorite food?
7. What foods do you eat for lunch on a normal day in America? (If you do not normally eat lunch, write "none")
8. What foods do you eat for dinner on a normal day in America? (If you do not normally eat dinner, write "none")
9. What foods do you eat as snack on a normal day in America? (If you do not normally eat snacks, write "none")
10. What foods do you consider core foods in your diet (in America)? (Core foods are those that you eat daily, or almost daily)
11. What foods do you consider secondary foods in your diet (in America)? (Secondary foods are those that you consume a few times a week, but not daily)
12. What foods do you consider periphery foods in your diet (in America)? (Periphery foods are foods you eat only occasionally)
13. What is your religious preference?
15. Estimate how many meals per week you consume outside of your home (restaurants, university cafe, take-out, fast food, street vendors, etc.): 
16. Are there certain foods you eat to stay healthy? If yes, please provide examples.
17. Are there certain foods you avoid because you believe they are unhealthy? If yes, please provide examples.
18. What are the biggest changes in your diet since moving to America (if any)?
19. Do you use food to treat illnesses (Ex: lemon juice for sore throat)? If yes, please provide examples.
20. Where do you get most of your information about nutrition? (Ex: what to eat, what not to eat, which foods are healthy, etc.) 
21. Please arrange the food groups from MOST to LEAST in terms of the amounts you consume per day. (Ex: if your diet is high in grains, put that first. If you eat vegetables less than any of the other food groups, put that last).
22. Please choose the physical activity level that describes you on a normal week.
23. In terms of eating the foods you want to eat, what is the most challenging part of living in America for you?
24. Explain any food habits you have retained from Turkey while living in America.
25. Please name as many foods as possible that you normally eat in Turkey, but do not eat in America.
26. How satisfied are you with your current eating habits?
Appendix 2: Turkish Nutrition Education Materials

Event Flyer/Advertisement

Türk Yemekleri Amerika’da
Dinner, presentation & discussion

Learn simple ways to re-create healthy Turkish foods in America!
Dinner is provided!

Event Details:
Thursday
March 19th
5:30 pm
Lyman Hall Cafe
(2nd Floor)

Limited Space, RSVP Required: BLPete01@syr.edu
Dietary Acculturation

How your eating habits change when you move from one place to another
Fruits & Veggies in EVERY Meal!

**Breakfast**
- Menemen w/ whole wheat bread
- Yoğurt w/ granola, cinnamon, honey, dried or fresh fruit, and nuts

**Lunch**
- Lentil veggie salad w/ pita bread
- Mücver made in muffin tins w/ side of yoghurt & apple

**Dinner**
- Lettuce wrapped kısır
- Red lentil soup with vegetables
- Chickpeas with spinach

**Dessert**
- Dark chocolate dipped dried figs
- Frozen yogurt bars with pistachios and strawberries
Increase plant-based proteins

Many Turkish foods are already high in plant-based proteins!
Increase consumption of these and lower consumption of beef and chicken.

- legumes (beans, lentils, and peas)
- soy foods (tofu, tempeh, soy milk, soy products, meat alternatives)
- nuts and nut butters (almonds, walnuts, hazelnuts, pecans, pistachios, macadamias, Brazil nuts, peanuts)
- seeds and seed butters (sunflower, sesame, hemp, chia, pumpkin)
- whole grains (quinoa, oats, brown rice) can be good protein source (up to 3 g protein per cup, i.e. kamut)
- vegetables, such as peas, spinach, broccoli (can contain up to 6 g protein per cup)

Invest in a Turkish Pantry

Essential Spices
- Red pepper flakes ($3)
- Dried mint ($3)
- Oregano ($3)
- Cloves ($5)
- Allspice ($5)
- Cinnamon ($5)
- Cumin ($6)
- Cardamom ($7)
- Sumac ($7)

Other Useful Items
- Garlic <$1
- Onions ($1)
- Tomato & red pepper paste <$1
- Canned & dried legumes ($1-2)
- Olive oil ($5)
- Pine nuts ($5)
- Nigella seeds ($6)
Always pack a healthy snack

Easy, portable snack ideas:

- Turkish trail mix: dried figs, dried apricots, walnuts, pistachios, dark chocolate chips
- Hummus dip: pack hummus in a reusable container with cut up vegetables to dip in it

Use your resources!

Local food, other Turkish students, community supported agriculture...
Why this all matters...
Tips for Healthy Eating in America

- Use time-saving ingredients to cook at home.
  Research has shown that cooking is a healthy habit in itself, and is associated with overall better health and weight. Use time-saving ingredients so you can cook more often.
  - Quick Pide: Use whole wheat pizza dough (at room temperature), chopped vegetables, and low-fat cheese to make your own pide- then throw it on a baking sheet with a little bit of non-stick spray. Bake at a high temperature until dough is cooked through. Make 2 and save one for lunch the next day!
  - Time saving ingredient list: canned beans (rinse before using to lower sodium), pre-made hummus, frozen falafels, fresh bread/pitas from the bakery area, frozen rice, pre-cooked lentils (sold at Trader Joe’s).

- Make HALF your grains WHOLE.
  Whole grains contain more fiber to keep your digestive tract healthy and keep you full for longer, PLUS they have more vitamins and minerals (iron, magnesium, B vitamins, selenium, & fiber) than white bread.
  - Make easy exchanges: brown rice or bulgur instead of white rice, whole wheat bread instead of white bread.
  - Check the label for 2 key things:
    - Fiber should be >10% your daily value per serving
    - 1st ingredient should be a whole grain (whole wheat, brown rice, bulgur, buckwheat, oatmeal)

- Eat fruits and veggies in every meal.
  High consumption of vegetables and fruits is associated with reduced risk of many chronic diseases. Start by just adding 1 additional serving per day, and make sure you have some variety in your week.
  - Look for seasonal, local fruits/veggies like kale, squash, and carrots - the farmer’s market is great for this because what is seasonal is what the farmers are selling.
  - 1 serving of fruits or vegetables is about the size of your fist, or 1/2 fist if cooked (like spinach).

- Add plant-based proteins.
  Plant-based proteins are nutritionally adequate, regular consumption is associated with lower risk of chronic diseases and cancer, and eating a diet high in plant protein can lower your carbon footprint by 20% or more!
  - High sources of plant-based protein: lentils, beans, peas, soybeans, seeds, nuts, whole grains (esp. quinoa), vegetables (esp. spinach)
  - Turkish sources of plant-based protein: red lentil soup, pistachios, mercimek köftesi, walnuts, nohut yemeği, kuru fasulye, ispanak yemeği, bulgur (low-fat Turkish yoğurt is also a great protein source, and though it is not plant-based, is a better choice than meat)
❖ **Invest in a Turkish pantry.**
Spices don’t add calories or sodium—they add flavor, antioxidants, and vitamins! Having the basic ingredients for Turkish cooking will allow you to cook more easily.

- Spices—red pepper flakes, dried mint, oregano, cloves, allspice, cinnamon, cumin, cardamom, sumac; Others—garlic, onions, tomato/red pepper paste, canned & dry legumes, olive oil, pine nuts, nigella seeds.
- Join the free grocery store membership “clubs” so you can take advantage of sales—wait for items to go on sale before you stock up!

❖ **Always pack a healthy snack.**
Being prepared with a healthy snack will prevent you from overeating later in the day. It is also a great time to add healthy food into your daily intake.

- Turkish trail mix: dried figs, dried apricots, walnuts, pistachios, dark chocolate chips
- Hummus dip: pack hummus in a reusable container with cut up vegetables to dip in it.
  
  **Note:** Cutting your vegetables yourself saves money over store-cut ones. Cut them and store them in bags you can take with you out of your house.

❖ **Use your resources.**
Syracuse has some great local food options. And if you are having any trouble with access to food, there is always someone who is willing to help if you just ask!

- Living abroad can be hard, especially in a place like Syracuse where not having a car prevents you from accessing a lot of the grocery stores. Reach out to others when you need help getting somewhere…and if you have a car, post in the Turkish Student Association Facebook group before you go to the store to see if anyone needs a ride!
- **Things to check out in Syracuse:**
  - Regional Farmer’s Market
  - Grindstone Farm Community Supported Agriculture (CSA)
  - Syracuse Real Food Co-Op
  - Samir’s Imported Goods
  - Grocery stores like Trader Joe’s, Wegmans, and Tops

---

**Good Luck!**
Dinner Menu

Mının Menu

Çacık
Yogurt with Cucumber & Herbs

Sebzeli Mercimek Çorbası
Pureed Red Lentil & Vegetable Soup

Kısur
Bulgur & Vegetable Salad

Nohutlu İspanak Kökü
Spinach Stem & Chickpea Stew

İçli Pilav
Spiced Rice with Currants & Pine Nuts

Kepekli Ekmek
Whole Wheat Bread

Çikolatah Kuru İncir
Chocolate Covered Dried Figs

Cezerye
Carrot & Nut Bars
Recipes

Cacık: Yogurt with Cucumbers & Herbs
(Makes ~2.5 cups, 5 servings)
- 2 cucumbers, peeled and grated
- 3 garlic cloves, minced
- 2 tbsp olive oil
- 1 tsp salt
- 2 cups plain yogurt
- Small handful of mint leaves, finely chopped
- Large handful of dill, finely chopped
Combine all ingredients in a bowl and serve cold.

Kırmızı Bulgur and vegetable salad
(Makes 1 large bowl, 5-6 servings)
- 1 ½ cups fine bulgur
- 1 ½ cups hot water
- 2 tbsp tomato paste
- 2 tbsp red pepper paste
- 3 cucumbers, peeled and diced
- 3 tomatoes, diced
- 2 carrots, grated
- 1 long green pepper, diced
- Juice of 1 lemon
- 3 tbsp pomegranate molasses
- 3 tbsp olive oil
- 1 tsp salt
- 1 large handful dill, chopped
- 1 small handful mint, chopped
1. Put bulgur, tomato paste, red pepper paste, and onion (optional) in a bowl. Add hot water and stir, then allow to sit. The bulgur will absorb the water, then you can fluff it with a fork. No need for cooking it on the stove!
2. Add in the cucumber, tomato, carrot, green pepper. Mix to combine.
3. Season with lemon juice, pomegranate molasses, olive oil, salt, dill, and mint (or other herbs of your choice).
4. Refrigerate until you are ready to serve.

Çikolata Kuru İnciri: Chocolate covered dried figs
- Dried figs
- Bittersweet chocolate chips
1. In a glass bowl, melt chocolate chips in microwave until slightly melted; then stir.
2. Dip figs into chocolate and place onto a piece of parchment or wax paper to cool.

Sebzeli Mercimek Corbası: Pureed Red Lentil Soup with Vegetables
(Makes 1 large pot, 8 servings)
- 1 Tbsp olive oil
- 1 leek (or onion), sliced
- 2 cloves garlic, chopped
- 1 potato, peeled and cubed
- 2 carrots, peeled and sliced
- 2 tomatoes, chopped
- 1 red or green pepper, chopped
- 2 cups dry red lentils
- 6 cups water (may add more to make thinner)
- 2 tsp salt
- Freshly ground black pepper
- Red pepper flakes
- Juice of one lemon
Optional topping: heated butter/olive oil with red pepper flakes
1. Heat olive oil in a large soup pot. Add leek and garlic and sauté.
2. Add carrots and potato and cook for about 3-5 minutes.
3. Add tomato and red pepper and cook for another 3-5 minutes, stirring occasionally.
4. Add lentils, water, salt, and pepper and bring to a boil. Lower to a simmer and cook, covered, for about 20 minutes until the lentils are softened and falling apart.
5. Use an immersion blender to blend the soup together into a homogenous mixture. If you do not have an immersion blender, you can put the soup into a regular blender in 3-4 batches to blend together.
6. Taste and adjust seasoning if necessary.
7. For topping, heat some olive oil or butter and mix in red pepper flakes. Drizzle over soup and serve with a lemon wedge.
Ishli Pilav: Spiced Rice with Currants & Pine Nuts
(Serves 5)

- ¼ cup dried currants
- 2 cups rice (may use jasmine)
- ½ cup pine nuts
- 1 ½ tbsp butter
- 2 tbsp olive oil
- pinch of salt
- 1 tbsp allspice
- 1 tsp cinnamon
- 1 tsp black pepper
- 1 handful of dill, finely chopped
- 3 cups water (or chicken/vegetable stock)

1. Begin by placing the dried currants into a small bowl and soaking them in hot water. Leave them to soak on the side while you begin to prepare the rice.
2. Place pine nuts into a large pot and toast them until they begin to turn light brown, but be careful not to burn them.
3. Add butter and olive oil to the pan. Cook pine nuts for about 30 seconds, stirring, then add the rice.
4. Sauté the rice for about a minute, stirring. Add the allspice and black pepper, and sauté until you can smell the allspice (~30 seconds).
5. Using your hands, squeeze the water out of the currants. Add them to the pot, along with a bouillon cube and 3 cups of water. Stir and cover with lid. Allow to cook for about 15 minutes, until water is absorbed.
6. Add dill and stir. Cover with paper towel and replace lid. Allow to sit for 15 minutes before serving.

Nohutlu İspanak Kılığı: Spinach Stem & Chickpea Stew
(Serves 2-3)

- 6 cups spinach roots
- 2 cups spinach leaves
- 2 cups chickpeas, cooked
- 1 onion
- 3 tbsp olive oil
- 1 tbsp tomato paste
- 1 tbsp red pepper paste
- 1-2 cups chicken/vegetable broth
- Black pepper to taste
- 1 tsp pomegranate molasses
- Juice of ⅔ lemon

1. Heat olive oil in large pot and sauté onion until transparent.
2. Mix in tomato paste and red pepper paste. Cook for 2 minutes.
3. Add spinach (roots and leaves), chickpeas, chicken broth, and pepper. Simmer, covered, until liquid is mostly absorbed.
4. Remove from heat and stir in pomegranate molasses and lemon juice.
5. Serve with warm bread.

Cezerle: Carrot & Nut Bars with Coconut
(Makes about 20- store in airtight container 1 week-room temperature)

- 3 cups grated carrots
- 1 cup water
- 1 cup sugar
- 1 tsp lemon juice
- ¾ cup walnuts or pistachios, finely chopped
- ½ cup coconut flakes or ¾ cup chopped nuts

1. Cook grated carrots in water (covered) for about 20 minutes, or until very soft.
2. Add sugar and lemon juice.
3. Continue cooking uncovered on medium heat. Cook for about 40 minutes until moisture is gone and it becomes sticky.
4. Stir in nuts, and transfer to parchment or wax paper lined tray to cool (~1 hr).
5. Shape into balls or squares, then roll in coconut flakes or chopped nuts.

More recipes available on my blog: anatolian-kitchen.com