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An Anthropological Study of Eating Perspectives, Meal Composition, and Food Choices Among Diverse Student Populations

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AN ANTHROPOLOGICAL STUDY OF EATING PERSPECTIVES, MEAL COMPOSITION, AND FOOD CHOICES AMONG DIVERSE STUDENT POPULATIONS

by

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ABSTRACT

My thesis explores the factors that shape or reinforce international college students' perceptions of food. This research not only examines how cultural values affect individual nutrition and maintenance of eating behaviors, it also addresses the extent to which accessibility impacts eating behaviors. Notably, the research endeavor uses the concept of dietary *habitus* as an underlying directive mechanism for study. This study finds that most students experience a reduction in their fruit and vegetable intake. Another finding suggests that international students eat healthier and are more structured in comparison to domestic students if they hybridize their dietary habitus. Research findings also suggest that most participants perceive food on campus to be both equally healthy and unhealthy, with limited accessibility to national cuisines and affordable healthy foods.

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CHAPTER ONE: INTRODUCTION

Perhaps more so today than ever before, college students are confronted with a wide range of on campus dining options that are no longer limited to the traditional cafeteria favorites of breakfast, lunch, and dinner. Student unions across the country now feature well-known fast food eateries including Chik-fil-A, Qdoba, and Subway alongside more conventional dining hall facilities with their familiar tray service and buffet-style selections. Whether at private or public institutions of higher learning, this expansion in eating options increases convenience but also presents new challenges to undergraduates who are living away from home for the first time. Alakaam et al. (2015:104) report that many college freshmen, international students, and others who are living away from home for the first time are particularly at risk for developing health problems associated with unhealthy eating practices. They identify over/under eating, stress induced eating, and nutritional deficiencies as outcomes of limited access to healthy food options and the overall university experience.

On campus dining choices are influenced by various social, cultural, economic, geographical, political, and religious factors. Increased understanding about what compels university students to choose certain campus dining options over others can be approached from various social scientific perspectives as well as through the lens of cultural anthropology. Essential to the aims of my thesis is the idea that people consume identity through food. Of specific interest at the University of Central (UCF) is how meal compositions for first and second year Asian international college students change over time from their everyday local diets. *Everyday local diet* refers to what respondents commonly consume in their home country such as national cuisines, and dishes eaten inside and outside of the home.

Students who commonly eat traditional diets and national cuisines may be vulnerable to widely available convenience cuisines when they enter a campus food environment for the first time as they are exposed to various unhealthy high calorie meals. According to Alakaam et al. (2015:109) on campus dining typically features buffet-style meals, fast food, and there are comparatively more American convenience food choices. Brewis (2012) finds that cost-efficient cuisines of this variety are primarily marketed towards children, adolescents, and young adults. To best prevent the rising prevalence of overweight students it is critical to identify and examine at risk periods of weight gain and development of unhealthy eating behaviors. Difficulties transitioning from high school to university have been distinguished as a high-risk period for students. This move to higher education generates consequences for many young adults as they relocate away from familiar surroundings, attain more independence, and establish new relationships. This transition might be followed by modification or abandonment of formerly held routines and integration of new dietary habits (Deforche et al. 2015).

Consequently, it is often difficult for university students to negotiate the campus foodscape to find well-balanced and nutritious meals. Furthermore, the U.S. currently maintains the world's highest proportion of international students, accounting for approximately 17 percent of all international students worldwide (Organization for Economic Cooperation and Development [OECD] 2013). The significant number of international students creates added pressure for universities to meet the dietary demands of often ethnically diverse populations. Other sources maintain that it warrants further discussion, emphasizing that in many academic institutions growing numbers of international students are enrolled and contribute to the cultural diversity of student populations in the U.S. Researcher Behjat Sharif (1994:264) maintains that

"there has not been sufficient investigations to uncover the nature of their health-related problems and unique conditions influencing the health of international students." Notwithstanding, the deficiency of academic literature available suggests that international students face problematic periods of adjustment which can adversely affect their health**.** Recent student protests at Oberlin College draw attention to many criticisms of dining hall food. Students describe some of the food as "culturally insensitive" or lacking in fresh or traditional ingredients (Mejia 2015:1). Cultural student organizations' demands for more culturally appropriate food items met a positive response from dining services who vowed to alter menu items.

To address such considerations, my thesis focuses on the eating behaviors and meal compositions of diverse student populations at UCF, the nation's second largest institute of higher learning with an estimated enrollment of approximately 60,000 students (2014-2015 Common Data Set 2015). Moreover, UCF has a sizeable number of international students who comprise 2.5 percent of the student population. Considering the large proportion of Asian international students, it is pertinent to investigate the challenges of eating in a university environment, and how the population modifies food choice. Furthermore, per the International Affairs and Global Studies ([IAGS] 2014) website there are 2,128 international students attending UCF. A total of 450 Southeast Asian and East Asian international students currently attend UCF which accounts for approximately 21 percent of the total amount of registered international students. Compared to other international populations attending the university there are more Southeast/East Asian international students enrolled. Specifically, the research endeavor focuses on East Asian and Southeast Asian students who have lived in the U.S. for a

period of six months to two years. Given the varied demographic composition of UCF's student body, questions arise about what if any differences emerge in how distinct undergraduate cohorts both negotiate the food choices of on campus dining and compose their daily meals. To determine what role, if any, nationality plays in these considerations, I compare the food and meal behaviors of a select population of international students at UCF.

In concrete terms, my thesis addresses the following research questions: (1) How do Asian international students at UCF currently construct meals?; and (2) how do their current on campus food choices compare with what they typically ate in their country of origin?

Differences Between the Standard American Diet and Traditional Foods

Distinctions between the composition of standard American meals and those eaten within traditional Asian diets are numerous (Alakaam et al. 2015, Amos and Lordly 2014, Choi et al. 2015). Alakaam et al. (2015) and Amos and Lordly (2014) argue that not only are many of the foods offered on campuses like UCF's unfamiliar to international students it is also sometimes difficult for Asian international students to distinguish between healthy and unhealthy foods. For example, Alakaam et al. (2015:110) also find that most of international students reported eating traditional meal compositions before moving to the U.S. Specifically, students defined traditional foods as "fresh prepared, simple, and basic, such as meat, eggs, fish, beans, vegetables, fruit, seeds, and milk." The researchers further differentiate between processed and convenience foods in the U.S. They ascribe traditional diets and national cuisines as being generally healthier while American convenience foods/dietary habits are considered less healthy. Furthermore, international students in their study report that they do not eat a lot of fast food in their home

country due to the high cost of convenience/processed foods compared to relatively inexpensive fresh foods (Alakaam et al. 2015:109-111). Accordingly, I hypothesize that if the sample population reports eating meals composed in similar ways to what they commonly ate at home, they will continue to eat healthy, modify their diets, and develop fewer health problems compared to their domestic counterparts.

In addressing these research questions, I utilize a constructivist "grounded theory" in combination with ethnography to analyze data. According to Ralph et al. (2015:66-67) grounded theory is a useful concept in qualitative approaches, allowing researchers to code and categorize emerging themes. The thick description provided by ethnography is complimentary to grounded theory generation since both generally use naturalistic styles of inquiry such as participant observation and interviews. Additionally, socio-cultural researchers view ethnography as a viable way to generate contextualized understandings of the "ways in which consumers buy and use specific items," while simultaneously providing generalizability to their insights. Similarly, the methodological approach of grounded theory allows for the generation of "substantive theories of behavior," and creates a way to cross-validate findings (Pettigrew 200:259).

Moreover, I also rely on Pierre Bourdieu's (Sato et al. 2016:174) concept of *habitus* to address how acquired schematic perceptions (i.e. cultural beliefs and practices) of meal construction influence individual preferences to eat unhealthy/healthy foods. Notably, meal compositions among Asian international students are an embodiment of their reproduced cultural values, including social and psychological processes which regulate perceptions and actions. What students do in their daily routines influences their decisions to eat specific items and is

ultimately socially reinforced in a recursive interplay between the individual and structural "agency" through time (Smith 2017:103).

For instance, international students' food habits are constructed in their home country and are a product of social conditioning. Taking their preconceived notions about food with them, students incorporate their emic worldview into new environments. Habitus triggers reactive behaviors and facilitates perceptions in the context of a specific field or circumstance. Within the context of the on campus dining options, students can utilize individual agency or plasticity by altering what they previously consumed (Smith 2017:103-104). Accordingly, one's food habitus can be modified or hybridized, especially when entering a new foodscape.

According to Tam et al. (2010) and Cantarero (2009), nutritional perspectives are specific to one's culture and preference is often contingent upon factors such as ethnicity, country of origin, and acculturated/enculturated ideologies about health and food quality. I argue that homogenization of meal composition may be related to factors associated with globalization and acculturation. Globalization is used to describe the process of organizing nations and people into a greater global community which can affect culture, politics and economics. Acculturation describes the process of culture change through external forces, and contact between cultures. Both are factors involved in cultural hybridization or "transculturation" and can impact a variety of behaviors and attitudes which include: taste preference, sensory characteristics, availability, convenience, cognitive restraint, and cultural knowledgeability (Alakaam et al. 2015, Amos and Lordly 2014).

CHAPTER TWO: LITERATURE REVIEW

To date, relatively few anthropological studies have emerged which comparatively assess the food choices and meal compositions of international and domestic university students in terms of nationality, residency status, and campus food environment. Furthermore, previous studies do not address the specific features which comprise the everyday local diets of both international and domestic students prior to and while attending university. In the past, anthropologists have examined the sociality of consumption patterns found in different cultural groups and populations to determine how dietary preferences affect individual health, status, and socio-political relationships (Binge et al. 2012, Cantarero 2009, Dufour et al. 2013). Additionally, sociologists (Cantarero 2009, Choi et al. 2011), evolutionary scientists (Brewis 2012), and others working in fields of health and nutrition (Alakaam et al. 2015, Brown et al. 2010, Deforche et al. 2015, Gorgolhu et al. 2012, Hang 2015, Moreira et al. 2005, Quick and Byrd-Bredbenner 2013, Sampaio et al. 2015, Tam et al. 2010, Valladares et al. 2016, Wang et al. 2008) have examined the meal composition and social and biological implications of consumption.

Public awareness regarding the negative effects of convenience foods on health has encouraged dining institutions in public and private education facilities to incorporate more diverse dining options (Binge et al. 2012). Improvements in food choices and culturally sensitive cuisines may generate improvements in individual nutrition. According to Brewis (2012:1-2), obesity rates in the U.S. have doubled in just one generation. The development underlies current concerns about the nutritional content and food quality of student eating options. For example, Sampaio et al.'s (2015:66) anthropometric and nutritional assessment of college students finds

that the domestic college campus population consumes a disproportionately high amount of fats and sugars compared to fruits and vegetables. A critical examination of student eating habits and meals helps clarify why these disparities occur in diverse student populations.

Like Sampaio et al. (2015) Gorgulho et al. (2012:806-807) also address the significance of college students' food choices. Specifically, they examine the students' intake of sugars, carbohydrates, and fats relative to grains and vegetables/fruit. Fruits and vegetable consumption was reported as being lower if college students were employed an average of 30 hours a week. This may account for a greater consumption of convenience foods by university students since it can be challenging for students to find time to prepare healthy meals. Examining the role that stress and work specifically have on student diets may yield important differences on how students eat at home versus what they eat at school.

Deforche et al. (2015:1-2) examine changes in weight, activity and eating behaviors of university students. Specifically, they explore the phenomenon colloquially known as the "freshmen 15," a period where students typically gain weight their first year of attending university. The researchers provide anthropometric and BMI data which indicate levels of health before entering university. Their data shows that college freshmen on average consumed less fruits and vegetables upon entering college and confirms previous studies (Sampaio et al. 2015, Gorgulho et al. 2012). Additionally, their study examines how an increase in sedentary lifestyle choices such as watching television, surfing the Internet, studying, or playing videogames, as well as unhealthy dietary decisions can increase weight gains. The researchers admit that their study is unable to fully investigate other factors that may lead to changes in BMI including recent dieting, meal frequency, snacking, meal location, and skipping meals (Deforche et al.

2015). My research seeks to address these gaps and effectively explore variations in meal frequency, meal location, and other dietary behaviors as they relate to culture and campus food environments.

Drawing upon the works of nutritional and sociocultural anthropologists, my research findings also elucidate attitudes towards food accessibility, meal composition, and processes of globalization. My thesis is not the first to focus on college age students, for example, Matejowsky (2009) examines Filipino college students, studying the effect of corporate fast food's influence on dietary choices and student nutritional perspectives. Stockton and Baker (2013) analyze the changing opinions and attitudes of Midwestern college students towards fast food by exploring how age and gender impacted preference. They find that caloric deterrents are the most prolific factors in determining food choices which may explain avoidance of convenience foods by certain students.

Another issue effecting student nutrition are the dining halls themselves. Binge et al.'s (2012:123-124) anthropological study examines the role of campus foodservice in the lives of Chinese students. Although not set in the U.S., their study is relevant since it explores some of the challenges experienced by students in an unfamiliar foodscape. They find that most students viewed on campus dining facilities as being nutritionally deficient or lacking in variety. Their qualitative research suggests that universities should offer more diversity in their menu items and update their menu items so students do not become tired of the same things being served repeatedly. Students also report a desire to have adequate accessibility to balanced nutrition.

Overall, Binge et al.'s (2012:141) anthropological investigation into student diets finds that dining halls did not satisfy student's needs. They (Binge et al. 2012:121) go on to say, "we

have found that catering was to satisfy a biological need of students but it not only influenced student health directly and affected spiritual outlook, pleasure degree and learning outcomes, which influenced the overall satisfaction towards the school." Additionally, they report that dining halls did not fulfill students' needs. Their analysis of interviews finds that their student sample is not satisfied by campus food service which affects their accessibility to healthy foods. More than half the students report that on campus food service affects individual nutrition. Other students felt that on campus dining led to health problems because it did not offer choices; approximately 40 percent of the students report that there "was no reasonable nutrition" in the food (Binge et al. 2012:131)

Furthermore, food scientists (Moreira et al. 2005:229) suggest that university students exhibit various degrees of restraint which considerably affects their fruit and vegetable intake. *Cognitive dietary restraint* refers to a process where individuals closely monitor their food intake to achieve desired results. Compared to low-restraint individuals, high restraint individuals tend to eat structured meal compositions to lose weight or maintain a healthy and balanced diet. High restraint individuals typically ate less starchy foods while low restraint participants engaged in higher caloric diets. The extent which "restraint" and structure in meal composition are culturally regulated would benefit from an anthropological investigation to determine how these two concepts are related.

Dietary habits can have far reaching effects aside from weight losses and weight gains. Working within the discipline of food science, Valladares et al. (2016:699) suggest that students eating habits are associated with their academic performance. Their survey of university students examines the role of dimensions or eating behaviors and their effect on cognitive processing.

Like Moreira et al. (2005) they argue that students who practice high levels of cognitive restriction will have better academic performance compared to students who have a higher propensity for uncontrolled and emotional eating. Their study highlights that drinking habits, food choices, food quality, cooking methods, and portion sizes are facilitated by learned, cultural experiences. They conclude that "behavioral disinhibition" may be correlated to BMI, which then adversely affects academic performance (Valladares et al. 2016:703).

Their research (Valladares et al. 2016) is relevant to my study since I am measuring similar variations in eating behaviors such as levels of cognitive restraint, malnutrition, and over-nutrition and the impact they may have on pre-established dietary habits. Their research reveals that there was a positive correlation between grade point averages and eating behavior in female university students.

Additionally, Quick and Byrd-Bredbenner (2013:53) examine college students to determine what individual and social factors influence eating habits. They report that respondents are influenced by factors other than restraint such as depression, anxiety, and obsessive compulsive disorders. Their research highlights why meal compositions may change due to environmental and internal stressors.

Besides studies which predominately focus on domestic student diets, Alakaam et al. (2015:104) investigates the dietary acculturation of international students. They identify what factors influence deviations in food preference. They find that changes in students' "food environment, campus environment, religion, and individual preferences" may result in things like weight gain, higher cholesterol, increased blood pressure, higher blood glucose levels, and select mental problems such as depression and anxiety. Specifically, their incorporation of the concepts

of “traditional food,” “resistance,” “food environment,” and “campus environment” highlight the relative significance of location and atmosphere in facilitating dietary choices (Alakaam et al. 2015:112-113). Their study is helpful since they can define traditional foods as a “food with particular characteristic in term of the use of raw ingredients which differentiate it from other processed or convenience food” (Alakaam et al. 2015:105).

Moreover, Tam et al. (2010:979) addresses how the dietary acculturation of second generation Asian-Americans is a result of culturally facilitated meal hybridization. The researchers analyze the diets of Los Angeles area Korean college students and compared their diets to those of older Koreans living in the same region. Notably, they compare how enculturation/acculturation and processes of Westernization affect the food choices of different demographics. Their findings suggest that college age Koreans are more likely to consume dairy, calories, and carbohydrates than older generation Koreans. Significantly, they find that students who still lived with their parents and grandparents were more likely to consume more traditional Korean foods. Their research reveals that social forces act as mediators in combining Eastern and Western food ideologies and the overall gravitation towards the “Americanization” food preference.

Similarly, Wang et al. (2008:756) examines the caloric and nutritional intake of Taiwanese medical students and American college students in Los Angeles. They find that both groups fail to meet their suggested daily requirements of fruits and vegetables which may be related to their respective food/campus environments. Notably, they suggest that the native Californian population consumes more fruits and vegetables compared to Taiwanese students. The Taiwanese sample population appears to eat more rice and simple grains. Additionally, the

Los Angeles sample population generally eats less meat, beans, and grains which may reflect American dietary habits and meal composition.

Correspondingly, Amos and Lordly (2014:59) examine cross-cultural research on international students and the process of acculturation as it relates to food. Unlike traditional approaches they use the idea of "photovoice," to collect students' nutritional perspectives. Moreover, the study (Amos and Lordly 2014:59) finds "seven themes related to the significance of food in acculturation were revealed: the paradox of Canadian convenience, the equation of traditional foods with health, traditional food quality and accessibility, support networks, food consumption for comfort, ethnic restaurants, and the exploration of non-traditional foods." Ultimately, they conclude that there remains a pronounced need among international students to utilize food to satisfy emotional and physical needs in a new environment. Nonetheless, unequal access to foods commonly consumed before university attendance in Canada remains an issue for some international samples more than others. For instance, Chinese students report having easier access to traditional diets compared to Saudi Arabian students. Differential access to healthy foods is a disparity I explore in my research endeavor.

Additionally, Pan et al.'s (1999:54-57) research discusses the vulnerability of Asian populations over other international populations. They find that Asian students intake of fats, salty and sweet snack items, and dairy products increased overall. Their study concludes that there were substantial decreases in the consumption of meat and meat alternatives, as well as fruits and vegetables. Findings indicate that although Asian students ate out less often than American students, when they did, they were more likely to choose American convenience

foods. These types of studies highlight the challenges that Asian international students face in negotiating a vastly different food environment.

In a similar research study to Amos and Lordly (2014), Brown et al. (2010:202) explore the cultural meanings attached to food. Working within the parameters of nutritional anthropology, they examine the role of food in the lives of international graduate students experiencing changes in their dietary habits resulting from relocation to foreign university foodscapes. Their study highlights the phenomenon of "culture shock," which entails "anxiety that results from losing the familiar signs and symbols of social intercourse and substituting them with other cues that are strange" (Brown et al. 2010:202). They examine emotional and sensory differences between home and international foods. Moreover, they delve into the support networks created when students eat national dishes together. Like other studies, they focus on how cultural transition can lead to changes in BMI and unhealthy eating behaviors. Their research finds that students preferred to hybridize their meal composition to include home-made national dishes. International students felt that national dishes were not only healthier, but better tasting as well. Overall, students perceived local food as less tasty, and less nutritious overall, containing higher levels of sugar and fat. Their concluding remarks urge universities to address the nutritional well-being of international students in order to better assist incoming cohorts with the transition process as well as to improve upon the quality and nutritional accessibility of healthy foods on campus.

Furthermore, a study by Hang (2015:758) explores the problems facing Chinese international students attending American universities and how they discern potential health risks associated with convenience foods and cuisines. Using the Risk Information Seeking and

Processing (RISP) model Hang investigates the role of risk assessment and self-efficacy in avoidance behaviors in Chinese students (2015:760). He claims that health concerns are a major deterrent for the sample population to make balanced food choices. Specifically, his study suggests that "those who come from a foreign country and who have not been exposed to a lot of information about the hazards of consuming these foods become a more vulnerable group than those who were born and socialized into the American food marketing environment" (Hang 2015:765).

The previously discussed studies are relevant to my thesis research as they help highlight differences in food choices of first year domestic students and first year international student populations. Studies focusing specifically on international students (Alakaam et al. 2015, Brown et al. 2010, Amos and Lordly 2014, Hang 2015, and Pan et al. 1999) reveal some of the obstacles foreign students are faced with in new foodscapes. Additionally, their studies demonstrate the importance of national cuisines in international student diets. Their data are useful in differentiating between Americanized and more traditional food items and behaviors.

Furthermore, Alakaam et al.'s (2015) study demonstrates the common dietary trends of both American and traditional dietary habits. Research endeavors focusing on domestic college populations (Binge et al. 2012, Deforche 2015, Gorgulho et al. 2012, Moreira et al. 2005, Quick and Byrd-Bredbenner 2013, Tam et al. 2010 Sampaio et al. 2015, Stockton and Baker 2013, and Valladares et al. 2016) explain the dietary habits of students in their respective domestic environments. Tam et al. (2010) is particularly useful in explaining dietary acculturation and hybridization of food choice. Moreover, Wang et al. (2008) compares the food choices of domestic American college students to those of Taiwanese students, highlighting the differences

in consumption behavior. Overall, the studies provide valuable insights into food habitus, food choice globalization, and dietary acculturation over time.

CHAPTER THREE: RESEARCH SETTING AND METHODS

To compile a relevant body of data, I employ a variety of methodological techniques. These include: (1) participant observation, (2) questionnaire survey, (3) interviews. The three ethnographic techniques are essential because they provide different types of contextual information in diverse research settings. These types of techniques are highlighted by anthropologists as essential to the identification and analysis of emergent themes (DeWalt and DeWalt 2011:3, Fetterman 2010).

Research Timeline

All the potential respondents were approached on UCF in the following locations: GLOBAL UCF, the two dining halls, the Student Union, the John T. Washington Center, and the John C. Hitt library. Prospective respondents were asked if they would like to participate in a research study on student diets and cultural perceptions. All 25 interviews were conducted over a period of five months; from to August to December 2016. The five semi-structured interviews, and 20 informal interviewees were recruited through the dining halls, and with the assistance of UCF GLOBAL. The survey questionnaire was administered both online and to students at various campus locations.

Research Setting

Considering the UCF area is home to a wide variety of restaurants and dining institutions, nonetheless, students may find themselves saturated with convenience foods and fast-casual eateries that make it difficult to maintain a healthy diet. A simple web search reveals that within

a two-mile radius of UCF campus there are at least 15 fast food and fast-casual establishments. The widespread availability of high-fat, low-nutrition foods served by such quick-service eateries in a relatively small spatial proximity is the subject of recent scientific inquiry. Differing from the idea of a "food desert," the term *food swamp* has emerged in academic literature. This concept often refers to an area that contains high proportions of calorie-dense, high-fat and high-sugar food items (Bridle-Fitzpatrick 2015:2). In addition to the stress of moving into a new community, food swamps can make it challenging for students to secure healthy, nutritious meals.

UCF's campus foodscape offers slightly more variability in terms of the cuisines offered. There are some 25 places to dine on campus (UCF Campus Map) including two major dining halls: 63 South and Knightro's. The smaller of the two facilities is Knightro's which is located near the Towers residential student housing, CFE Arena, and Memory Mall. It is also a short distance away from the Towers and Lake Claire dormitories. The larger of the two dining halls is 63 South which is located near the Libra and Apollo dormitories in Ferrel Commons. It is also a short distance from the Math and Sciences building, the Reflection Pond, Technology Commons, the CREOL building and the Harris Engineering Building. The following sub-chapters review each dining area specifically.

Knightro's and 63 South

The dining halls at 63 South and Knightro's are facilities that offer UCF students an assortment of cuisines to students. Both locations are usually busy with student and faculty diners. Upon entering the dining hall, students are met with a variety of options from which to

choose from. Both dining halls use a structured menu known as “Campus Dish.” Aramark’s online menu recycles various meal options throughout the month to avoid redundancy. For example, while pizza is available everyday items such as meatloaf, chicken piccata, or lasagna are featured once or twice every two weeks. The cyclical menu also rotates ethnic cuisines and other specialty food items. The dining areas feature different selections that are subdivided into distinct stations. “Chef’s Plate” is one of the featured stations. It typically serves a meat protein, starch, vegetable, and occasionally a carbohydrate like rolls or flat bread. The “grill” station usually serves items such as: hamburgers, hotdogs, turkey burgers, cheese steaks, chicken nuggets, grilled chicken sandwiches, Montecristo’s, corn dogs, and French fries. The “sauté” station often features ethnic cuisines as well as chicken, beef, and pork meats usually combined with a pasta or rice component. The station includes self-serve vegetables mixed in with the pasta and accompanied by marinara, alfredo, cheese, or broth based sauces.

The “deli” station serves sandwiches and a variety of side salads (e.g. potato salad, macaroni salad, seafood salad, tuna salad, or chicken salad), along with pickles, tomatoes, lettuce, onion, and cheese. The breads offered by the deli range from wheat and white hoagies rolls, to wraps and flatbreads. The students have the choice to eat ham, turkey, and chicken on their sandwiches. “Vegan” and “pizza” stations are located adjacent to the deli. The vegan station serves dishes with side items including rice, couscous, rice noodles, barley, quinoa, and fresh vegetables. The menu items are usually mixed in with a vegetable broth or curry. The pizza station has a set daily menu, featuring cheese pizza and pepperoni pizza. There is some variety in the specialty pizza which usually is a vegetarian pizza, calzone, or flatbread pizza that is topped with meat, sauce and cheese.

The “espresso” and “dessert” stations not only serve coffee drinks, tea, hot chocolate, and specialty drinks that are available upon request, they also offer a variety of desserts which rotate daily. Always available are sugar, chocolate chip and vegan oatmeal cookies. The desserts range from molten lava cakes, brownies, cobblers, pies, and cakes to rice crispy treats and muffins. The espresso station is attached to the cereal dispensers, offering popular cereals like Lucky Charms, Cheerios, Golden Grahams, and a gluten-free option among others.

The salad section is located near the center of the dining hall. Students can choose from green romaine lettuce, ice berg lettuce, and spinach. The additional items students can choose from options which include: carrots, tomatoes, cucumbers, green peppers, corn, garbanzo beans, quinoa, barley, shredded cheddar cheese, yogurt, honey dew melon, cantaloupe, black beans, canned pineapple, canned peaches, and different types of salad dressing. In addition, bagels, sliced white bread, and sliced wheat bread are offered alongside marmalade, jelly, and plain cream cheese. The students can also choose to top their salads with dried cranberries, sunflower seeds, croutons, and dried egg noodles.

Unlike other on campus eateries, the dining halls experience a breakfast, lunch, and dinner rush as opposed to just one time of day which is typical for restaurants in the Student Union. The breakfast rush usually begins around 8:00am, lasting for approximately two hours, the lunch rush starts at 11:30am and lasts until about 3:00pm. For dinner, the busiest times are between 5:30pm and 9:00pm. The availability of fresh fruits and vegetables at both dining hall locations offers variety whereas other on campus dining locations typically do not feature these items. Conversely, the dining halls offer convenience foods, and high-calorie options. The ratio of healthy to unhealthy food items are discussed in more detail in Chapter Five.

Student Union

The Student Union offers an array of dining choices for UCF students and faculty. Featured eateries include Knightstop & Sushi, Pita Spot, Subway, Corner Café, Domino's, Asian Chao, Huey Magoos, Café Bustelo, Qdoba, Nathan's, and a Chili's Grill and Bar. These restuarants are usually very busy during lunch and dinner hours. The lunch rush occurs between 11:30am and 3:00pm. While the dinner rush typically starts at 5:00pm and lasts until about 7:00pm.

Breezeway

The John T. Washington Center or "Breezeway" is another dining area where students can eat breakfast, lunch, and dinner. It is generally a very active social space for students; a place for friends to eat and relax in between classes. The two main eateries located in the "Breezeway" are Chik-fil-A, and a Starbucks located inside of the UCF bookstore.

Additionally, located on UCF campus near the CFE Arena are quite a few dining options including: Knightro's are Einstein's Bagels, Kyoto Sushi & Grill, Burger U, and Domino's. Einstein's Bagels primarily serves bagels, muffins, and sandwiches. Domino's menu includes, pizza, salad, pasta bowls, bread sticks, and salads. Kyoto features largely Americanized versions of traditional Asian cuisines such as rice and meat dishes and noodles. Burger U primarily serves burgers, fries and other types of convenience foods. Smoothie King offers students blended smoothie options as well as energy and assorted meal replacement bars.

Ethnographic Methods

Participant Observation

Participant observation is a key aspect of my thesis research since it enabled me to subtlety record and collect descriptive data on large groups of people. DeWalt and DeWalt (2011:123-126) maintain that participant observation provides "inherently emic views" and "records of prolonged activity," which are in this case associated with eating behaviors. Additionally, participant observation allows for multiple opportunities to observe students as they eat and note their reactions to food in a naturalistic setting. From July to December 2016 I observed students' eating behavior across UCF, including locations within campus dining halls, the Student Union, Breezeway, and other areas.

Besides meal locations, I documented whether or not those observed returned for multiple portions of the same food item. This information suggests preference or meal satisfaction. This allowed me to record if students visually/verbally expressed satisfaction/dissatisfaction with their food choices; specifically, whether students consumed or disposed of certain food items in the trash. Furthermore, recording the specific meal components; including how long individuals spent eating food items and the approximate time students spent dining overall. During my observations and interviews, I employed the technique of active listening which requires the undivided attention from the investigator. Active listening is an important part of anthropological research since it allows for the detection and assessment of "key events" and dialogue (DeWalt and DeWalt 2011:183). Participant observation notes were hand-written in notebooks and later manually transferred into a digital format for analytical coding.

Interviews

Formal and informal interviews also played an essential role in data collection about student eating behaviors. Ethical approval to continue this research came from the UCF's Internal Review Board. Moreover, all interviewees were offered financial compensation; one dollar, for their time. I recruited 25 interviewees to participate in interviews guided by questions approved by the UCF IRB (See Appendix D). All participants were briefed regarding the scope and purpose of the study and informed that their participation was completely voluntary. Correspondingly, they were given informed consent forms to review and keep for their records. Respondents were not required to sign consent form since the study posed minimal risk and their identity kept private using pseudonyms. From the 25 interviews conducted, five consisted of semi-structured recorded interviews and 20 consisted of unrecorded semi-structured interviews. I interviewed seven domestic students and 18 international students in total. Out of the 25 interviewees, 10 are female and 15 are male.

Moreover, a dual methodological framework remains a useful tool to collect and organize context-driven information (Ralph et al. 2015:1-2). I examined students, recording and discussing what respondents consumed day to day. I observed the meal compositions of students from varying ethnic backgrounds on a weekly basis for a period of six months. To clarify, *meal composition* describes the nutritive substances found in food and the term refers to a meal's structure and the individual components. Besides observing and interviewing international students from the research populations that eat many of their meals on campus, I also implemented a "photo-voice" approach to discern how food habitus affects their perceptions of meal structure, food quality, and convenience within sample populations (Amos and Lordly

2014:59). Photo-voice employs the use of laminated photographs depicting various traditional and non-traditional foods items. The approach created an effective way to help students construct what they commonly consumed before college in addition to what their current diet.

Participants

Pseudonyms are used to protect the identity of my interviewees. Most interviewed students live on campus and attend classes full-time at UCF. Alyssa (Subject 1), Phillip (Subject 2), Casey (Subject 3), Lee (Subject 4), and Raj (Subject 5) all live on campus in shared dormitories. Additionally, Quartz (Subject 6), Ling (Subject 7), Sam (Subject 8), Jem (Subject 9), and Ringo (Subject 10) live on campus in shared residences.

Ming (Subject 11) lives in a shared off campus apartment while Chao (Subject 12), Zander (Subject 13), Georgia (Subject 14), and Andy (Subject 15) live on campus in shared dormitories. Minerva (Subject 16), and Ana (Subject 17) live on campus in shared dormitories. Yan (Subject 18) lives off campus by himself. Pete (Subject 19), and Sean (Subject 20) live on campus in shared residences. Janie (Subject 21), and Tom (Subject 22) live off campus in shared dormitories. Zee (Subject 23), Austin (Subject 24), and Amy (Subject 25) live on campus in shared residences. Table 1 below lists the age, sex, ethnicity, and academic career of the interview subjects.

Table 1: Nationality, Age, Sex, Residency, and Academic Career of Interview Samples

Student	Age	Sex	Nationality	Academic Career	Residency Status
Subject 1	19	F	Black/African-American	Freshmen	U.S. Native
Subject 2	20	M	Chinese	Sophomore	1 year
Subject 3	20	M	White-American	Sophomore	U.S. Native
Subject 4	19	M	French-Vietnamese	Sophomore	U.S. resident for 10 years
Subject 5	18	M	Indian	Freshmen	Less than 1 year
Subject 6	18	F	Burmese	Freshmen	Approximately 1 year
Subject 7	18	M	Chinese	Freshmen	Approximately 1 year
Subject 8	30	M	Chinese	Graduate	Approximately 2 years
Subject 9	18	F	Chinese	Freshmen	Approximately 2 years
Subject 10	19	M	Chinese	Freshmen	Approximately 6 months
Subject 11	30	F	Chinese	Graduate	2 years
Subject 12	27	M	Chinese	Graduate	2 years
Subject 13	24	M	Indian	Graduate	1.5 years
Subject 14	18	F	Vietnamese	Sophomore	1 year
Subject 15	19	F	Vietnamese	Sophomore	2 years
Subject 16	29	F	Bengali	Graduate	6 months
Subject 17	19	F	Kazak	Sophomore	1.5 years
Subject 18	25	M	Vietnamese-American	Sophomore	U.S. Citizen
Subject 19	18	M	Chinese	Freshmen	2 years
Subject 20	20	M	White-American	Junior	U.S. Native
Subject 21	22	F	Chinese	Graduate	6 months
Subject 22	25	M	Chinese	Graduate	Approximately 1 year
Subject 23	23	M	Chinese	Graduate	1 year
Subject 24	18	M	White-American	Freshmen	U.S. Native
Subject 25	18	F	Black/African-American	Freshmen	U.S. Native

Essential to interviews are the directive questions and the "photo-voice" component which allowed students to identify different types of foods in their everyday meal composition from a series of laminated photographs which contain images of both traditional and non-traditional food items (Amos and Lordly 2014). I recorded data from informal and semi-structured interviews using handwritten "jot notes" in the margins of notebook paper (DeWalt and DeWalt 2011:160).

The first section of the interview included questions about students' demographic information; age, ethnicity and gender. The next section elicited information on their residency status, academic career, and duration of their time in the U.S. The third, and arguably most crucial aspect of the interview entails questions about individual nutrition and past/current meal compositions. Information collected on this topic better ascertain changes in "dietary habitus" and eating behaviors (Sato et al. 2016:174).

The meal compositions of the sample population are determined using 23 laminated photographs that depict different food items. Table 2 below lists the various food items and the number of pictures associated with each respective category.

Table 2: Types of Food Varieties and Number of Illustrative References

Illustrations of Food Varieties	Number of Pictures
Asian Vegetable Types	1
Domestic Vegetable Types	3
Domestic and Exotic Fruit Types	4
Seeds and Nuts	1
Carbohydrates	4
Proteins	1
Cream and Broth Soups	1
Traditional Vietnamese Pho	1
Dairy	1
Sweeteners	1
Fats, Oils and Butter	1
Convenience Foods	1
Traditional Chinese Dishes	1
Hot and Cold beverages	1
Dessert Types	1

I directed students to use these photos to construct their current diet. Afterwards, they were asked what their "everyday local diet" was while living at home. They were given the option of using a marker to circle which items they currently eat and those consumed while still living at home. Additionally, the photo-voice interviews were utilized to elucidate the general attitudes and perceptions concerning on campus dining and food choices. The next set of questions elicited information regarding meal frequency, preference, and portion sizes. The middle interview section tasked students with the identification of traditional and non-traditional food items. This portion also contained questions regarding frequency of traditional items consumed in past and current contexts. Finally, the last interview segment included questions regarding self-reported changes in student health, meal times, types of cutlery used while dining on campus, and students' meal plan status. Field notes and meta-notes were utilized to record,

assess, and organize interview responses in addition to the questionnaire survey (DeWalt and DeWalt 2011:160-170).

Semi-structured interviews took place in the library in a private study room. They were recorded digitally with a laptop computer. Informal unrecorded interviews took place in public spaces like the Breezeway, the John C. Hitt library, Starbuck's, and the Student Union. Direction and aid on conducting and analyzing interviews/surveys by DeWalt and DeWalt (2011) and Fetterman (2010) was integrated into the research design. Interviews lasted between 15 and 45 minutes with some exceeding the allotted time due to extenuating circumstances. To analyze the informal semi-structured interviews, I directly transcribed the audio files to a digital format. The data from informal, unrecorded interviews were transferred from notebooks into a digital format.

To protect confidentiality of the participants, data were stored on password protected computer files to which only the principal investigator had access. With the aid of technology, I directly transcribed the recorded interviews from Windows Media Player to Microsoft Word. It took approximately three hours each to transcribe the five recorded interviews, and several hours to organize all 20 of the informal interviews with photo-voice components. Interview data were then coded for repeated words and phrases. Key events were also highlighted with the aid of different color coded notecards until key categories were identified. The data were coded using the Microsoft Word comment section in addition to color coded notecards. The use of all ethnographic techniques proved useful for data cross-referencing and triangulation (DeWalt and DeWalt 2011:128).

Surveys

Thirty questionnaire surveys were successfully distributed to not only determine participants' age and ethnicity, but also their individual food choices, portion sizes, and meal frequencies. Both paper surveys and online surveys were available to students. This instruments included a disclaimer which informed respondents that their participation was completely voluntary and to be kept anonymous. The fast food survey is based on a 2009 fast food survey conducted by Ty Matejowsky (2009) which examines the eating behaviors and preferences of Filipino college students and their consumption of fast food.

My survey is divided into five segments. The first portion asks for demographic information such as participants' ethnicity, age, and gender. The next section contains questions that inquire about students' academic career, residency status, and their time spent in the U.S. Following this, the survey contains questions about meal frequency, perceptions about on campus dining, and the consumption patterns of college students. After this, a section gives the respondents the opportunity to discuss their current diet, meal compositions when living back home, and past/current portion sizes. The last section of the survey mainly pertains to international students and their perceptions of traditional versus non-traditional food items. In addition, this section contains questions regarding the frequency in which national cuisines are consumed by international students in the U.S.

The surveys were distributed to UCF students entering/exiting the two campus dining halls or other dining locations. The online surveys were made available to students enrolled in four Department of Anthropology undergraduate courses, and distributed over a six-month period, from October 2016 to March 2017. The sample included anthropology and non-

anthropology majors. Students who took online surveys could submit them anonymously through UCF Webcourses. All physical copies were manually entered in an online survey database. The final exclusion criteria for questionnaire surveys call for responses from students between ages 18 and 30. In all, the print survey produces a sample size of n=30. The response rate for the online surveys was zero, and no online surveys are utilized in the study. The questionnaires provide crucial demographic and dietary information of international and domestic UCF students.

CHAPTER FOUR: QUANTITATIVE DATA ANALYSIS

Introduction

The following chapter discusses quantitative measures utilized in the research endeavor. The results are analyzed through statistical analyses to test my hypothesis that ethnicity and a formerly structured "dietary habitus" will influence current individual nutrition evidenced through food choice (Sato et al. 2016:174). The data demonstrate past and current health choices. The hypothesis is supported by the findings from the distributed questionnaire surveys. For my survey data, I originally anticipated compiling a larger sample of male and female Asian international students. Although my sample size falls short of a preferred n=25 for each sample population, the domestic student sample size met expectations. For questionnaires, the total domestic sample consists of n=25 and the international sample is n=5. For my interview data, my goal of interviewing 25 students was accomplished. For interviews, the sample totals were n=7 for domestic students and n=18 for international students.

The international sample size for questionnaire survey, however, only reaches a quarter of what I originally intended. While the survey was offered to a total of over 500 students in various anthropology undergraduate courses, the substantial refusal rate of over 90 percent is not that odd for a study of this type. Though not ideal, the working sample size of n=55 (25 from interview survey and 30 from questionnaire survey) is acceptable for the statistical analyses. In conjunction with the questionnaires' low response rate, some of the surveys have missing values for specific food choices. Since some students may have unintentionally left out or they could not recall certain aspects regarding their past and present meal compositions, I omit data regarding the carbohydrate and dairy consumption of domestic and international students from

quantitative analysis. Notwithstanding such gaps, the recorded/unrecorded semi-structured interviews provide detailed, and completed data for analyses.

The questionnaire survey is divided by demographic information. The domestic sample size for females is n=16 and for males it is n=14. Table 3 below illustrate the age, sex, ethnicity, and academic careers of domestic and international samples.

Table 3: Age, Sex, Ethnicity, and Academic Career of Survey Subjects

Student	Age	Sex	Ethnicity	Academic Career
1	18	F	White-American	Freshmen
2	18	F	Hispanic/Latino	Freshmen
3	18	F	White American	Freshmen
4	18	F	Black/African-American	Freshmen
5	18	F	White-American	Freshmen
6	19	F	Black/African-American	Freshmen
7	19	F	White-American	Sophomore
8	19	F	White American	Sophomore
9	19	F	Other	Sophomore
10	19	F	White-American	Sophomore
11	19	F	White-American	Sophomore
12	20	F	White-American	Junior
13	21	F	White-American	Junior
14	21	F	White-American	Freshmen
15	18	M	White-American	Freshmen
16	18	M	Hispanic/Latino	Freshmen
17	18	M	White-American	Freshmen
18	19	M	Asian-American	Freshmen
19	19	M	White-American	Sophomore
20	19	M	White-American	Sophomore
21	20	M	White-American	Sophomore
22	20	M	Black/African-American	Sophomore
23	20	M	Hispanic/Latino	Junior
24	21	M	White-American	Junior
25	21	M	Black/African-American	Junior
26	18	F	Chinese	Freshmen
27	18	F	Chinese	Freshmen
28	19	F	Chinese	Sophomore
29	18	M	Chinese	Freshmen
30	18	M	Chinese	Freshmen

Categorizations of Health

Regarding health and nutrition, I created categories for individual food and beverage items. To gauge differentiations in health and nutrition, while I categorize fruits and vegetables as healthy food choices, I assign the label "unhealthy" to foods containing high amounts sugar, sodium and fat such as ice cream, cake, and chips. For other items like protein, starch, dairy, and carbohydrates, the categories are more nuanced as they can be either nutritious versions or calorically dense. Chicken, fish, seafood, lamb, turkey, and tofu are considered healthy sources of protein whereas beef and pork are considered less healthy. Healthy carbohydrates include items such as rice, rice noodle, vermicelli noodle, flat bread, whole wheat bread, sweet potatoes, baked potatoes, seeds, nuts, corn tortillas and wraps. Unhealthy carbohydrates include things like pasta, white bread, croissants, bagels, donuts, egg noodles, and any bread product that is bleached or processed. Healthy dairy products include yogurt, kefir, low-fat cheese, and milk. Unhealthy dairy products encompass things such as ice cream, butter, cream, high-fat cheese, and sour cream. To clarify, I consider cheese and butter as unhealthy in many instances because students regularly consume it in large quantities, and the American cheeses/cheese sauces primarily offered by on campus dining locations are processed and/or high in fat. Moreover, unhealthy convenience foods entail foods such as pizza, hamburgers, hotdogs, pizza, chicken nuggets, fried chicken, chicken patties, quesadillas, sandwiches, kebabs, fish sticks, chicken wings, and tacos. As for beverages, I ascribe the term healthy to water, fresh fruit juices, coffee, and tea while unhealthy beverages include hot chocolate, soft drinks, and some caffeinated beverages.

Questionnaire Results

The results from the survey questionnaire demonstrate that while domestic students eat a greater variety of convenience foods they consume less varieties of fruits and vegetables. Figures 1 through 4 demonstrate differences between both sample populations. Figures 1 and 2 pertain to fruit intake, and Figures 3 and 4 pertain to vegetable consumption.

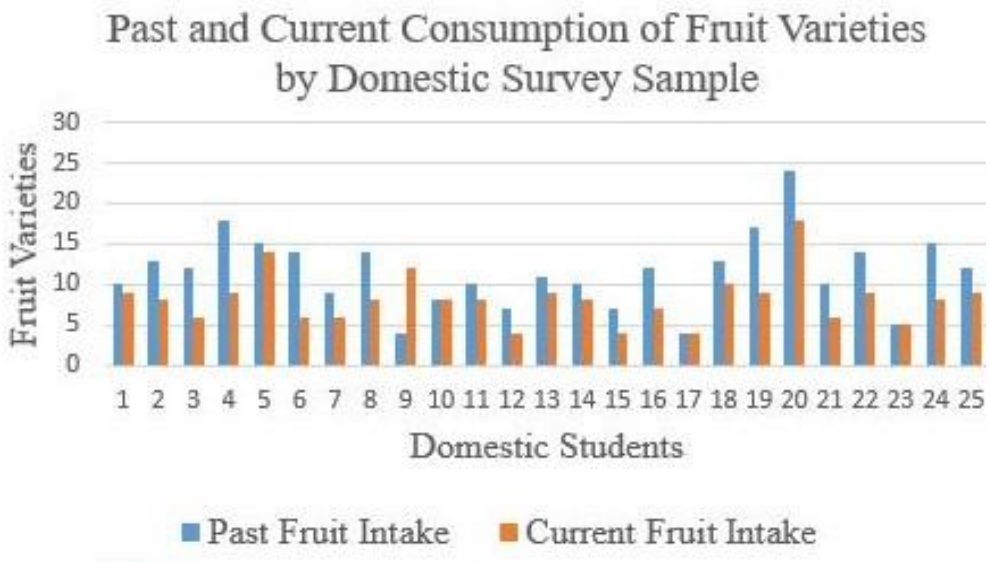

Figure 1: Past and Current Consumption of Fruit Varieties by Domestic Survey Sample

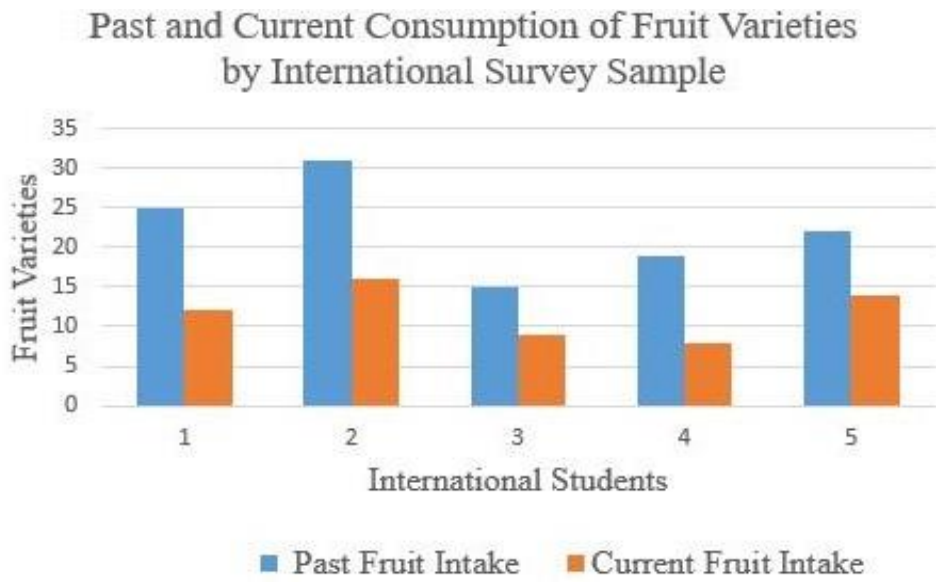

Figure 2: Past and Current Consumption of Fruit Varieties by International Survey Sample

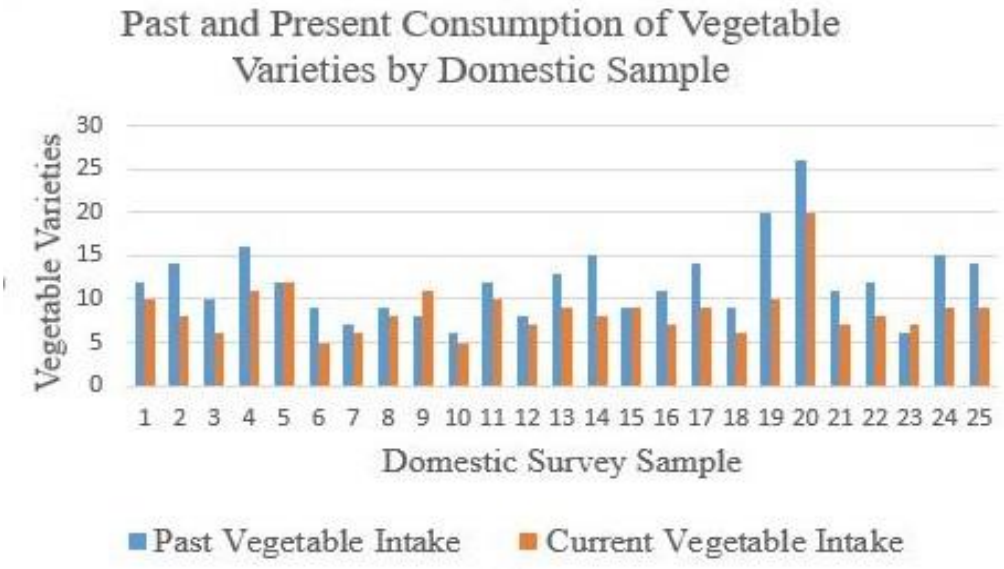

Figure 3: Past and Present Consumption of Vegetable Varieties by Domestic Sample

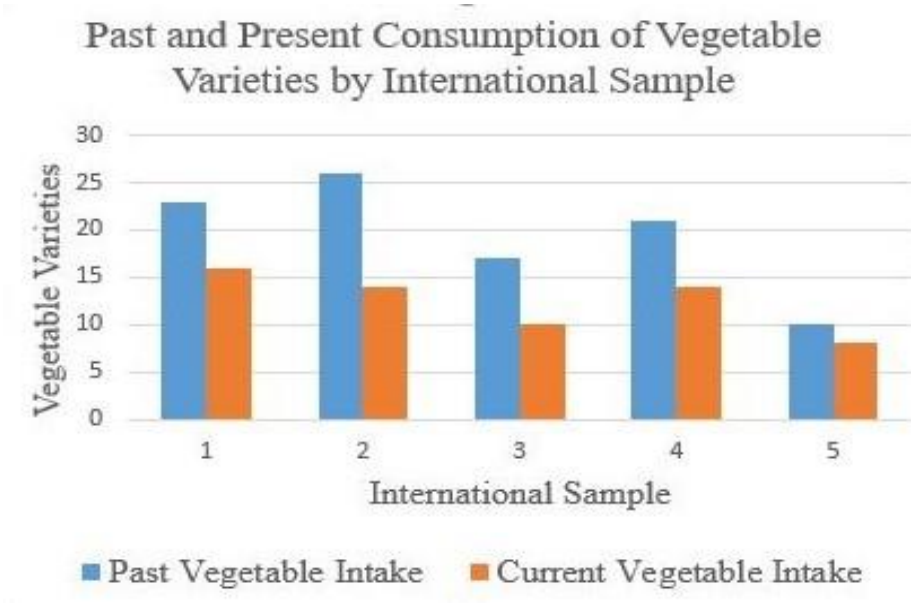

Figure 4: Past and Present Consumption of Vegetable Varieties by International Sample

Fruit and Vegetable Intake

Findings show that on average that domestic students ate 11.52 types of fruit prior to coming to UCF, and currently eat an average of 8.16 varieties while attending university. This represents a 29 percent decrease in fruit types. As for vegetable variety, domestic students ate 11.92 vegetable types while living at home and currently eat 8.68 types. This is a 27 percent decrease in vegetable types. International students average 22.4 types of fruit before, but since relocating to the U.S., they eat an average of 11.8 varieties which stands as a 47 percent decrease in fruit types. On average, students within the international sample ate 19.4 types of vegetables in their home country. Today, they currently eat an average of 12.4 types in the U.S; a 36 percent decrease. While international students experience substantial decreases in their consumption of different fruit and vegetable varieties, they currently eat 3.64 more fruit types and 3.72 vegetable

types than their domestic counterparts. When comparing past fruit consumption, the international sample on average ate an average of 10.88 more types of fruits before, and 8.2 types of vegetables.

Convenience Foods

Besides fruits and vegetables, questions pertaining to convenience foods also yield valuable insights. To further operationalize, convenience foods generally lack fresh, home-cooked or slow-cook elements characteristic of many traditional foods. Similar to Alakaam et al. (2015:109) I define unhealthy convenience foods as rapidly-prepared cuisines that are processed and high in fat, sodium, and/or sugar. Specifically, I regard chips, pizza, hamburgers, chicken nuggets, chicken patties, nachos, doughnuts, tacos, Lunchables, and cookies as unhealthy. Some national cuisines such as sushi or stir-fry also are included in the categorization of convenience foods as they can be rapidly prepared in a short amount of time. I consider sushi, edamame, salsa, falafel, pretzels, flatbreads, and pita and hummus as healthy forms of convenience cuisines.

Findings demonstrate that domestic students ate 6.12 types of convenience food in their home environment, and currently eat an average of 7.16. This is an increase of approximately 17 percent. Moreover, international students ate 4.6 types while living in their country of origin, and eat six types of convenience foods in the United States. This is an approximate 23 percent increase in convenience foods. The data show that domestic and international students saw similar increases in their consumption of convenience food varieties. International students appear to eat 1 less type of convenience foods in the university foodscape. However,

comparisons between the past consumption of convenience foods of both sample populations, international students ate on average one 1.52 less types of convenience foods in their home country. The data supports my hypothesis that international students are less likely to eat convenience foods and more likely to eat healthier alternatives.

Portion Sizes

The questionnaire survey also provides analysis regarding portion sizes. Responses indicate increases/decreases in serving sizes in both sample populations. For the domestic sample, eight students admit that they eat large portions, ten state that they consume medium portions, and seven report eating small portions. When asked about how their portion sizes have changed over time, six said they eat larger portions now, three said that they eat a little more, nine said they ate the same, four say they eat a little less, and three say they eat less. For the international sample, two students admit to eating small potions, two currently eat medium portions, and one now eats large portions. Moreover, the international students' portion sizes did not dramatically fluctuate, seeing as two eat the same portions sizes, one eats a little more, one eats a little less, and another student reports eating less.

On Campus Dining Preferences

Given my thesis's research objectives, it is important to consider the dining preferences of students who eat on campus. The frequency in which students dine on campus is as follows, ten students eat on campus once a day, five students eat on campus multiple times a day, seven students dine on campus three to five times per week, and two students eat on campus once or twice a week. The international sample reports that three of the students eat on campus once a

day while the other two eat on campus multiple times per week. All the respondents report that on campus dining is convenient. Eighty percent of the domestic sample considers on campus dining as nutritious whereas 20 percent consider food on campus to be neither good nor bad. Additionally, the majority of both student sample populations consider food on campus as a formal snack, and only three students reason that it is both a formal meal and a snack. Moreover, surveys show an overwhelming preference for the dining halls and restaurants featured in the Student Union. Findings are consistent with data collected from ethnographic interviews.

Consumption of National Cuisines

All five international students report eating traditional foods at least twice a week. No students report eating traditional diets while living in the U.S. Four out of five students admit that they ate traditional diets growing up in China; however, one of the female participants reports that she did not eat traditional foods consistently when she lived in Hong Kong. The findings are consistent with interview results discussed in the next subsection.

Interview Results

The interview sample consists of n=25. The seven domestic students include: subjects 1,3,4, 18, 20, 24, and 25. The 18 international students include: subjects 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 21, 22, and 23. Names, demographic information, and corresponding subject numbers are listed in Chapter Three. Figures 5 and 6 below demonstrate marked differences in fruit and vegetable consumption over time.

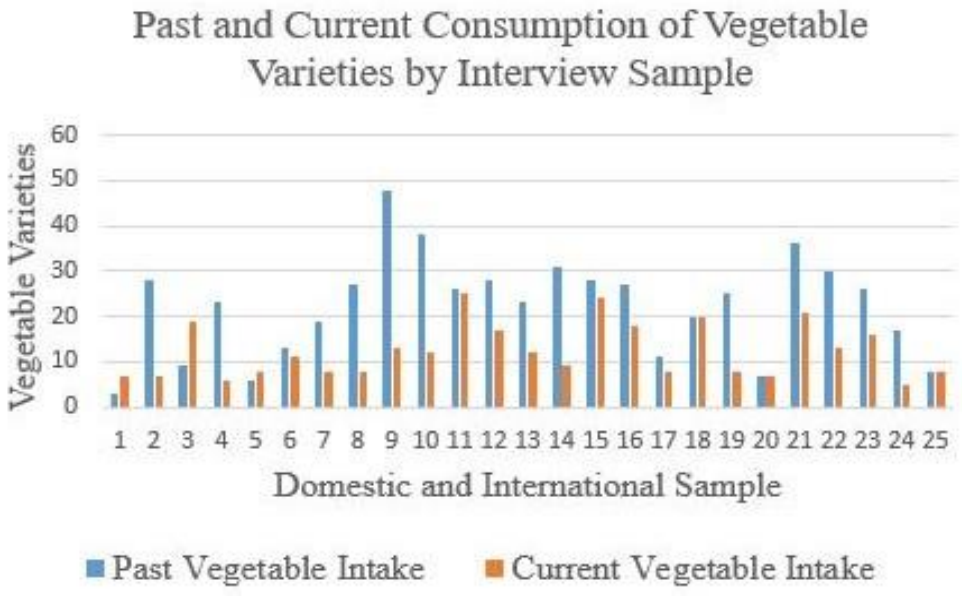

Figure 5: Past and Present Consumption of Vegetable Varieties by Interview Sample

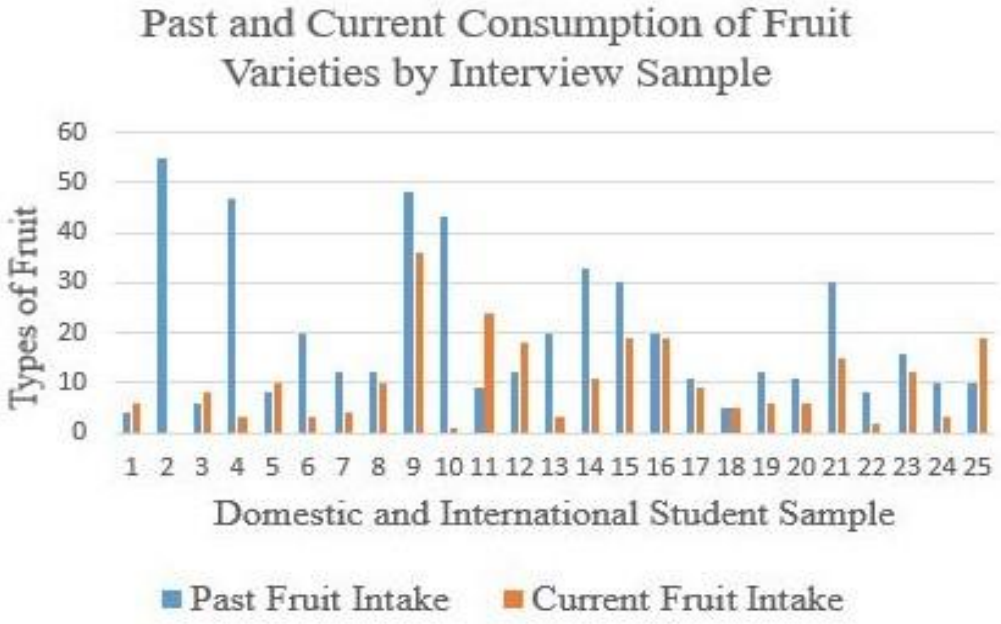

Figure 6: Past and Present Consumption of Fruit Varieties by Interview Sample

Fruit and Vegetable Intake

For fruit and vegetable consumption, I took the averages from the international and domestic interview samples for analysis. In terms of their past fruit intake, international students average 22.17 types of fruit, and 26.1 types of vegetables whereas the domestic sample average 13.2 fruit types, and 10.71 vegetable varieties. The current average amount of fruit varieties consumed from the international student sample is 11.2 and the average for the domestic sample is 7.14. The current mean amount of vegetable types consumed from the international student sample is 13.2 and the mean for the domestic sample is 12. International students experience approximately a 49.5 percent decrease in their average fruit consumption, and a 49.4 percent decrease in their vegetable varieties. Alternatively, the domestic students experience a 45.6 percent reduction in their average consumption of fruit varieties, and a 16.9 percent decrease in their average consumption of vegetable types.

Carbohydrates and Dairy

Analyses of the data show that both student samples increased their consumption of healthy and unhealthy dairy products after moving to UCF. Most interviewees eat cheese in large quantities, sometimes double or triple the recommended serving sizes which relegates it to the unhealthy category. Swiss and provolone cheeses are considered healthy, but they are not always readily available on campus. On average, international students eat 1.72 healthy dairy types and 1.52 unhealthy varieties in their diet. Comparisons with past meal composition indicate a 13.3 percent average increase in healthy types and a 110 percent increase in unhealthy dairy varieties. Domestic students average 1.43 healthy dairy products and 1.86 unhealthy types. Comparisons

exhibit a 16.2 percent increase in healthy dairy types and an eight percent increase of unhealthy varieties from when subjects lived at home. The variables attributing to the substantial increase in dairy consumption of international students is discussed in more detail in Chapter Five.

As for carbohydrates, the mean amount of current unhealthy types consumed by international students is 2.61, and they average 1.78 for healthy carbohydrates. Results show that international students experience an 11 percent decrease in healthy carbs, and a 51.7 percent increase in unhealthy varieties. The domestic sample currently averages 3.86 types of unhealthy carbohydrates and 1.56 types of unhealthy carbohydrates. They experience a 22 percent decrease in healthy varieties and a 35 percent increase in unhealthy types. International students are better suited to maintain their consumption of unhealthy carbs. However, the domestic students saw a considerable increase in the amount of unhealthy varieties. On average, most international students eat less types of unhealthy carbohydrates.

Proteins

The results from interview exhibit surprising results. On average, the international sample consumes 2.37 types of healthy protein and 1.68 unhealthy types. In the past, students ate 2.89 healthy types and 1.68 healthy types. The data exhibits an 18 percent decrease in healthy forms of protein, but no change in the amount of unhealthy protein consumption. The domestic sample eats an average of 1.71 types of both healthy and unhealthy protein; in the past, they consumed two healthy types and 1.86 unhealthy varieties. The survey findings show a 14.5 percent decrease in healthy protein types, and an eight percent decrease in unhealthy protein varieties.

Convenience Foods

The results from the survey questionnaires are consistent with findings from interviews and participant observation. Domestic students typically eat a greater variety of unhealthy convenience foods while international students tend to restrict their consumption of processed and high-fat foodstuffs. Domestic students average 4.71 types of convenience foods. This is a 65.2 percent increase from when they were in high school, while the international students average approximately 2.89. This is a 68 percent increase from the amount they ate while living in their home country. It appears that both sample populations experience dramatic increases in their consumption of convenience foods which is contrary to my expectations. Nevertheless, international students on average eat about 1.82 less types of convenience foods in the U.S., and ate 1.13 less types in their country of origin.

Overview

Overall, the findings suggest that living away from home for the first time in on campus foodscape in conjunction with readily accessible fast food enterprises can lead to an inflation of convenience cuisines in the diets of both international and domestic students. They also indicate that both international and domestic students experience reductions in both their fruit and vegetable intake. However, data from interviews and questionnaire survey also demonstrate that international students on average eat more varieties of fruits and vegetables in comparison to the domestic sample. The next chapter discusses qualitative data analysis.

CHAPTER FIVE: QUALITATIVE DATA ANALYSIS

The qualitative research discussed in this chapter was conducted with special emphasis on how cultural differences inform matters of food preference and meal choice. First, I discuss the categorizations I created for the various on campus eateries. Next, I discuss the three main codes which are as follows: (1) eating behaviors and meal composition before and after attending university; (2) factors that influence changes in eating habits post-migration, evidenced through accessibility and the on campus food environment; and (3) counteraction to dietary changes through food preferences, support networks, and consumption of national cuisines. The section on food preferences is divided into four sub-categories: fruit and vegetable intake, protein intake, carbohydrate and dairy intake, and convenience foods.

These categories emerged as viable over the course of interviews, demonstrating two distinctly different conceptions of health and nutrition which are based on preexisting cultural attitudes and beliefs about food. I illustrate the differences and similarities of international and domestic students' dietary choices. In addition to dietary preferences, I also describe changes to students' portion sizes over time. Also significant are the meal duration, and time spent consuming on food specific items. Finally, I discuss the consumption of traditional foods and national cuisines.

Categorizations of Health

To better analyze student diets, I created etic categories for the various eateries on campus dining facilities in terms of food items available to students These categories include "unhealthy," and "healthy" dining facilities. I categorized 63 South, Knightro's, Pita Stop,

Qdoba, Knightstop & Sushi, Corner Cafe as healthy dining choices since they offered fruits and vegetables or foods that were alternatives to unhealthy types of convenience foods. Domino's, Chik-fil-A, Café Bustelo, Huey Magoo's, Nathan's Famous, Jimmy John's, Java City, Asian Chao, Smoothie King, Einstein's Bagels, Kyoto Sushi & Grill, Mrs. Field's Bakery, Topper's Creamery, Dunkin Donuts, and Burger U as unhealthy dining institutions because most of their menu items are mainly convenience foods, and fast food items that are either high in fat and sugar or are of little nutritional value. In addition, to address differentiation in vegetable and fruit varieties I categorized anyone who ate less than ten fruit types as having "low variety," between ten and 19 as "moderate variety," and anyone who eats more than 20 types is assigned "high variety." The ascribed categories were useful in determining what students were eating while dining in the Student Union and elsewhere on campus.

Additionally, I assign arbitrary categories for fruit, vegetable, dairy, carbohydrates, and convenience food consumption. To measure changes in fruit and vegetable diversity, I use the following categories: nine or less types would fall into the low variety category, between ten and 19 types entails moderate levels of variety, and if the respondent ate 20 or more types they would fall into the high variety categorization. I tracked frequency changes for dairy by labeling products healthy or unhealthy. Unhealthy types include high-fat cheese (if students consume it in large quantities), sour cream, butter (if students consume it in large quantities), and ice cream, while healthy types consisted of yogurt, milk, low-fat cheeses, and kefir. Consuming three or more types of unhealthy dairy products indicates unhealthy eating habits; conversely, eating three or more types of healthy dairy is considered nutritious. Accordingly, the same categorizations of health are applied to carbohydrates (i.e. pasta, bread, and noodles), and types

of protein (chicken, beef, pork, lamb, fish, and miscellaneous seafood items). Changes are indicated by increase or decrease in the consumption of each.

My study also assesses beverage consumption. Beverages such as soda, sweet tea, hot chocolate, milkshakes, ice cream smoothies, energy drinks and other miscellaneous soft drinks are considered unhealthy. Conversely, healthy beverages include: water, unsweetened tea/coffee, and fruit juices. Most Asian international students admit that they drank soda when they were younger but have since abandoned that habit, considering it to be too unhealthy or full of "empty calories."

To gauge the duration of meal times. I record how long students spent eating. "Structured dietary behaviors" are usually indicative of healthy dietary habits (Alakaam et al. 2015:109). Similar to Alakaam et Al. (2015) I attribute structured eating behaviors to students who eat three or more meals a day, at similar times or periods, and for periods longer than ten minutes. Conversely, I ascribe "unstructured eating behaviors" to student who skipped meals, frequently snacked, ate at erratic times of the day, and finished their meals in less than ten minutes.

Research Methods Revisited

My stated hypothesis is tested through various methodologies. These include surveys, unrecorded/recorded semi-structured interviews. The main aim of these ethnographic techniques is to generate a data base that offers a comparative analysis of students' past meal compositions and their current food choices. Moreover, the data collected from domestic college students are compared to the responses of my defined sample group.

Informal and semi-structured interviews along with field notes and photographs are coded to identify any emergent themes and categories. Using grounded theory, I code for diverse data sets (Ralph et al. 2015). The types of coding techniques used in data analysis include descriptive coding, process coding, in vivo coding, pattern coding, and simultaneous coding (DeWalt and DeWalt 2011:183-184). This analysis includes an in-depth examination of meal composition in an urban campus environment. The data are relevant as they elucidate how and why international students alter or hybridize their meal composition while attending a major U.S. university.

Social Support Networks and Resistance to Dietary Changes

Findings derived from both participant observation and interviews suggest that international students choose to eat together in a context of relaxation, studying, and recreating feelings of home. I frequently observed international students dining together in groups. Eating with other international students, particularly those from the same region or country, helps reinforce social bonds and preserve cultural identity while concurrently satisfying rudimentary nutritional requirements. Anthropologists Amos and Lordly (2014) also discuss similar commensal behaviors in their paper on international students.

Conversely, I noticed that domestic students tend to eat in smaller groups. Occasionally I observed domestic students who ate in large groups of five or more, but I noted more instances where domestic students ate alone or in small groups of two to three. Indeed, international students often ate in larger groups. Their meals tend to last about 20-25 minutes more when compared to those of most of the domestic students I observed. The average meal time for

domestic students is usually around ten minutes or less, a noticeably shorter amount of time spent eating.

International students provide their perspective on eating at the same table with friends and family. Two of my Chinese interviewees report that commensality is an important part of Asian culture. Eating is a "social event" instead of a biological necessity. During an informal interview, Georgia, an international student from Vietnam, remarks that, "eating with [Asian international students] friends is nice…we get to speak in our language, talk about home, and plan holiday events that we celebrate in the [United] States." She emphasizes just how important eating with members from your home community is. In fact, all of the international students I interviewed express that they almost exclusively celebrate holidays and special events with other international students or visiting family members. They relish the opportunity to eat national dishes from their home country.

During interviews, I asked international students where they normally find traditional foods. A few of them report that organizations like GLOBAL UCF sometimes provide international cuisines for students when they host select cultural events. However, most admit that they prefer to go out to eat or cook national cuisines at home as opposed to trying to find them on campus. One Chinese graduate student, Zee, remarks, "Trying to find real traditional foods on campus is almost impossible. Asian Chao and Kyoto have Asian foods but it is different than what we eat at home."

The international students report going to off-campus ethnic restaurants which feature national dishes. However, most of those interviewed believe that the foods offered are "Americanized" versions of traditional foods. These versions largely prove inconsistent with the

traditional cooking methods practiced in their home countries. They assert that the most "authentic" national cuisines are made in the dorms or at off-campus apartments since they have access to a kitchen and cooking utensils. Food preparation in the dorms in these settings provide students opportunities to hybridize the composition of their meals with national cuisines. Similarly within UCF dining halls, students can hybridize their diets by incorporating aspects national cuisines into their meal composition. Several of those interviewed report that these gatherings are commonplace. These get-togethers afford international students a chance to bond and enjoy aspects of their culture. Furthermore, findings suggest that commensality provides an unintended resilience to unhealthy eating behaviors. The concept of *hybridization* (Alakaam et al. 2015, Amos and Lordly 2014, Tam et al. 2010) is a crucial theme repeatedly observed over the course of my research endeavor and is addressed at the end of the chapter.

Accessibility and Changes to Eating Patterns

Student concerns over accessibility and the overall availability of healthy and nutritious food is a recurrent theme of my research study. Zee, a Chinese graduate student, feels that the vegetable preparation methods at UCF dining facilities are healthier and contain less sodium and monosodium glutamate (MSG) when compared to stir-fry methods popular in China.

Differentiating between higher and lower calorie options is no easy task for students living away from home for the first time. Knightro's and 63 South make some effort to inform students about their dietary choices. Last year, a nutritional kiosk was installed in 63 South. This helps students to better look up specific menu items. The touch screen interface allows students to easily access nutritional and caloric data. However, over the course of my research I find that

students rarely utilize these resources. Conversely, eateries like Huey Magoo's and Domino's offer primarily convenience foods which that items containing high levels of fat, sugar, and sodium. Time appears to be one of the major factors that influence domestic and international students to consume convenience foods or fast food items. Many of the interviewees admit that their class schedules, studying, and social/work responsibilities make it difficult for them to go grocery shopping or prepare home-cooked meals. Instead, students choose to eat unhealthy convenience foods offered by Domino's or Chik-fil-A because they do not require extensive preparation. Time constraints present challenges for students to negotiate healthy food choices at UCF

Convenience foods and other highly processed fare fit into the contemporary American student lifestyles because it is compatible with the erratic schedules that students sometimes experience while attending university. Moreover, students enrolled in classes full-time and work full-time or part-time employment typically find it difficult to prepare healthy and nutritious meals at home. Undergraduates and graduate students living away from home for the first time are particularly vulnerable to such practices as they often lack access to basic kitchens in their dormitories. At UCF, only three dormitories; Lake Claire and the Towers, offer private kitchens, students residing in Apollo, Hercules and Nike have no access to kitchens and, therefore, are unable to cook anything beyond what can be prepared with microwaves. Microwavable foods are generally convenience foods that are rapidly prepared. Libra and Neptune offer community-kitchens, but these facilities are only available upon request.

Research participants note that while traditional stores are located closer to urban areas, fast food eateries and processed convenience foods are only a short distance away for many

students. Public transportation to the traditional stores is limited for some students. They typically lack the funds to travel or are unfamiliar with Orlando's urban layout. Domestic and international students alike occasionally depend on classmates or acquaintances to take them to off campus supermarkets and specialty or ethnic food stores where than can shop off campus. Pete, a Chinese international student recalls, "When I first arrived I didn't own a car or know anyone with a car so it was difficult to get food I would eat back home…everything is so far apart in Orlando."

It is important to further elucidate on accessibility issues as they relate to on campus food choices. International and domestic students have limited nutritional availability/food options because of constrained mobility. For international students, they have limited access to traditional foods because they are not sold on campus nor are they available at the immediate surrounding grocery stores. The small, convenience stores on campus offer little more than processed snack foods. As a result, the international sub-set are often forced to eat fast foods and unhealthy convenience cuisines available on campus. Domestic students face similar constraints in regards to access. Since there are no grocery stores located on campus students must secure rides, walk, or take the bus to supermarkets where they have more diverse food options.

Most of the international students that I interviewed have obligatory meal plans, limiting their dining choices to UCF's 25 on campus eateries. Of these 18 international students, 13 have obligatory meal plans. Three of the students in the international sample are former meal plan holders. Only four of the interviewees report never having a meal plan. Two out of the seven domestic students use meal plans, and three of the seven admit to purchasing a meal plan in the past. The extent of which meal plans affect dietary choices warrants further discussion and

should be considered for future ethnographic endeavors as they relate to international and domestic students' diets.

Multiple interviewees express that the UCF's food offerings contain varying degrees of health food accessibility. That said, most view on campus dining positively in terms of convenience. All respondents, including the those who participated in the questionnaire survey, agreed that on campus dining is accessible. Zee notes, "Whenever I finish my experiment I can always get food…so this is convenient, and another point I have to make is that they are also open on the weekend. Sometimes if I do not go out with my friends dining out, I would also choose on campus dining…so that's also convenient."

In terms of health, some 80 percent of the interviewees feel that on campus dining features both unhealthy and healthy items. In contrast, 12 percent agree that it features mostly healthy items; eight percent felt that the campus food environment contains mostly unhealthy items. In regards to whether or not they felt on campus dining is nutritious the domestic and international sample answered similarly; 72 percent agree it is both nutritious and not nutritious, 20 percent believe it to be nutritious, and eight percent feel it is not nutritious at all. Data indicate that relatively few students consider the campus foodscape as wholly nutritious and vice versa. Table 4 below depicts the responses of domestic and international students regarding on campus food items in terms of health and nutrition.

Table 4: Interview Sample's Categorizations of Health and Nutrition

Categorizations of Health and Nutrition	Mostly Good	Both Good and Bad	Mostly Bad
Interviewees on Campus Food Items in Terms of Health	12%	80%	8%
Interviewees on Campus Food Items in Terms of Nutrition	20%	72%	8%

Nutritional access on campus is not the only issue of accessibility facing international students. Several international students have special dietary requirements stemming from religious beliefs and/or cultural practices. Four out of the 18 international students report eating "halal," which entails a strict avoidance of pork and pork products. Two of the South Asian international students complain that the dining halls do not sufficiently differentiate between pork and beef, adding to confusion in their diet which could adversely affect their religious beliefs.

As previously mentioned in Chapter Two, unhealthy eating pathologies can develop for international students as a consequence of trying to navigate a foreign campus foodscape. International students admit they experience identification issues. Food recognition/cognition are experienced differently by international students compared to their domestic counterparts. For Raj, a Southeast Asian international student, admits that he has lost weight since attending UCF because he often finds it difficult to identify familiar foods such as fruits, vegetables, and others. He regards food on campus mostly as a snack since he does "not eat to satisfaction." Raj reports that he rarely finishes meals in the dining halls as he does not find them appealing. He even

admits to feeling malnourished during his first two months of school because foods in the U.S. do not meet his expectations in terms of health and nutrition.

Andy, a female international student from Vietnam, recalls hybridizing her diet prior to coming to the U.S. as a means to emotionally prepare for the initial effects of "culture shock" (Brown et al. 2010:203). Andy says that she spent a few months eating American-style cuisines because she had heard from family and friends that the transition to Western foods could be taxing on the body, and that traditional foods were not always readily accessible. She reports that finding familiar foods was not as problematic for her as with other international students.

Food Costs

Besides accessibility, food cost plays a significant role in influencing eating behaviors. During informal interviews, a few participants from India, Bangladesh, and Asia express that meat and vegetables are similarly priced in the U.S. However, in the home country vegetables are less costly than meat, thus students prefer to buy meat products; particularly, red meat in the U.S. Zee remarks that beef is expensive in China, and pork and chicken are generally preferred. He enjoys eating red meat in the U.S. In addition, Lee states, "Where I grew up [Vietnam] red meat is a sign of status, and chicken is looked down upon." He claims when he first arrived in the United states that he used to eat red meat as much as possible. It was more accessible to him on campus. Lee maintains that he prefers chicken now because he perceives it as healthier. The cost of beef in the U.S. is comparatively cheaper than in other Asian countries, adding to the accessibility of this protein type. Food cost is another variable that may impact the accessibility of certain types of food for international students.

On food expenses, Minerva remarks, “I eat more junk food at UCF because it is less expensive than healthy items…food on campus costs too much.” The respondents agree that convenience foods are cheaper and this makes them eat more of these items; moreover, the traditional food items are usually costlier for students and the stores do not always carry what they desire. Three of the Chinese international students I interviewed admit that the price of fresh fish and seafood in the U.S. is much more expensive than back home. They also comment that not only is seafood and fresh fish relatively scarce on campus, it is usually fried or breaded on campus.

Food Preferences as Resilience

To better understand relationships between food choice and cultural values, interviewees are questioned about foods that they enjoy or prefer to eat. Specifically, I ask them to list the foods that they ate in the past and on a weekly basis. By pursuing this line of questioning, I gain insights into their meal composition and individual nutrition. Originally I anticipated that amongst international students that there would be a strong preference for healthy traditional foods such as rice, fish, seafood, pho, fruits, and vegetables. I also expected that domestic students would exhibit preferences for convenience foods and processed foods including pizza, hotdogs, and hamburgers, as their preferred choices. With few exceptions, these assumptions are confirmed.

Fruit and Vegetable Intake

Fruit and vegetable intake of university students can be affected by a variety of factors. Earlier studies suggest (Alakaam et al. 2015, Amos and Lordly 2014, Brown et al. 2010,

Deforche et al. 2015) that vegetable and fruit intake decrease as university students transition to higher education. Tables 5 and 6 below illustrate significant changes in interviewees' micronutrient consumption.

Table 5: Interviewees' Fruit Intake and Differences Since Attending University

Interview Subjects	Past Fruit Variety Intake	Current Fruit Variety Intake	Differences in Consumption of Fruit Varieties
1	4	6	+2
2	55	0	-55
3	6	8	+2
4	47	3	-44
5	8	10	+2
6	20	3	-17
7	12	4	-8
8	12	10	-2
9	48	36	-12
10	43	1	-42
11	9	24	+15
12	12	18	+6
13	20	3	-17
14	33	11	+22
15	30	19	-11
16	20	19	-1
17	11	9	-2
18	5	5	0
19	12	6	-6
20	11	6	-5
21	30	15	-15
22	8	2	-6
23	16	12	-4
24	10	3	-7
25	10	19	+9

Table 6: Interviewees' Vegetable Intake and Differences Since Attending University

Interview Subject	Past Vegetable Variety Intake	Current Vegetable Variety Intake	Differences in Consumption of Vegetable Varieties
1	3	7	+4
2	28	7	-19
3	9	19	+10
4	23	6	-17
5	6	8	+2
6	13	11	-2
7	19	8	-11
8	27	8	-19
9	48	13	-35
10	38	12	-26
11	26	25	-1
12	28	17	-11
13	23	12	-11
14	31	9	-22
15	28	24	-4
16	27	18	-9
17	11	8	-3
18	20	20	0
19	25	8	-17
20	7	7	0
21	36	21	-15
22	30	13	-17
23	26	16	-10
24	17	5	-12
25	8	8	0

Overall, 23 out of 25 respondents experienced decreases in their overall fruit and/or vegetable assortments in either category; on average, international students eat comparatively more variety in both categories. Despite most of the students seeing a decrease in healthy varieties, seven out of the 18 international students maintain or increase their fruit and vegetable intake with moderate to high levels of variety. Four out of the seven domestic students are not

able to maintain healthy levels of fruits and/or vegetables; however, most of the sample experienced decreases in their fruit and vegetable varieties. Two out of the seven domestic students maintain moderate to high assortments of vegetables. One out of the seven domestic sample ate more fruit once she attended college, but her vegetable intake remained low.

Fluctuations in fruit and vegetable intake among international students are elucidated further in interviews. Phillip (Subject 2) claims, "fruit in the U.S. is not very good quality. I don't like the way it tastes" which may explain his abandonment of fruits in the United States. Tom (Subject 22) admits that he did not particularly enjoy the fruit in the United States or while he lived in China which accounts for his moderate vegetable consumption and low fruit intake. Analysis of quantitative and qualitative data demonstrates that the majority of international students are overall exposed to a greater variety of fruits and vegetables in their home countries which impacts their current dietary preferences for fruits and vegetables.

Protein Intake

International students report eating more types of meat products in the United States. "Healthy" protein varieties refer to chicken, fish, seafood, tofu, rabbit, lamb, snake, and tofu. "Unhealthy" protein varieties refer to beef and pork dishes. Tables 7 and 8 below illustrate the marked differences in the consumption of healthy and unhealthy protein types that students currently eat and compares it to what they ate back home.

Table 7: Interviewees' Past and Present Consumption of Healthy Protein Products

Interview Subjects	Past Intake of Healthy Protein Varieties	Current Intake of Healthy Protein Varieties	Differences Since Attending University
1	2	1	-1
2	4	1	-3
3	2	2	0
4	2	1	-1
5	3	2	-1
6	2	3	+1
7	3	3	0
8	3	2	-1
9	3	2	-1
10	2	2	0
11	3	3	0
12	3	2	-1
13	2	3	+1
14	3	4	+1
15	2	3	+1
16	2	3	+1
17	4	2	-2
18	4	3	-1
19	4	2	-2
20	1	2	+1
21	5	2	-3
22	3	2	-1
23	3	2	-1
24	1	1	0
25	2	2	0

Table 8: Interviewees' Past and Present Consumption of Unhealthy Protein Products

Interview Subjects	Past Intake of Unhealthy Protein Varieties	Current Intake of Unhealthy Protein Varieties	Differences Since Attending University
1	3	2	-1
2	2	2	0
3	2	2	0
4	1	1	0
5	1	0	-1
6	2	2	0
7	2	2	0
8	2	2	0
9	1	1	0
10	1	1	0
11	2	2	0
12	2	2	0
13	1	2	+1
14	2	2	0
15	2	2	0
16	1	1	0
17	1	1	0
18	1	2	+1
19	2	2	0
20	2	1	-1
21	2	3	+1
22	2	2	0
23	2	2	0
24	2	2	0
25	2	2	0

Tables 7 and 8 demonstrate that university students' consumption of unhealthy and healthy protein types. Table 7 illustrates that ten out of 18 international students experience reductions in healthy protein varieties. However, eight out of 18 international students say that they eat more types of healthy protein in the U.S. or they do not experience differences in their

protein consumption. For domestic students, three out of seven experience a reduction in the amount of healthy proteins they eat whereas four admit that they see gains or no change in their healthy protein types. Table 8 shows that 15 out of 18 international students, and four out of the seven domestic students experience no change in the types of unhealthy protein types they eat. Only two international students and one domestic student report eating one more type of unhealthy protein product. Two domestic students and one international student saw reductions in the amount of unhealthy protein types. This said, it appears that both sample populations experience similar reductions in healthy protein products. They also maintain similar levels of unhealthy protein varieties.

Carbohydrates and Dairy Intake

The interviews and participant observation also yield vital data regarding diary and carbohydrate intake of students. Tables 9 and 10 illustrate the past and current consumption of unhealthy and healthy dairy products by university students. Tables 11 and 12 illustrate the past and current consumption of unhealthy and healthy carbohydrate types and demonstrates the differences in eating behaviors since attending UCF.

Table 9: Interviewees' Past and Current Consumption of Healthy Dairy Products

Interview Subject	Past Intake of Healthy Dairy Varieties	Current Intake of Healthy Dairy Varieties	Differences Since Attending University
1	2	2	0
2	0	1	+1
3	2	3	+1
4	0	0	0
5	2	3	+1
6	2	2	0
7	1	0	-1
8	1	2	+1
9	0	2	+2
10	2	1	-1
11	2	2	0
12	2	2	0
13	2	2	0
14	2	2	0
15	2	2	0
16	2	2	0
17	2	3	+1
18	2	2	0
19	0	0	0
20	1	1	0
21	2	2	0
22	1	2	+1
23	2	1	-1
24	0	1	+1
25	2	2	0

Table 10: Interviewees' Past and Current Consumption of Unhealthy Dairy Products

Interview Subject	Past Intake of Unhealthy Dairy Varieties	Current Intake of Unhealthy Dairy Varieties	Differences Since Attending College
1	3	3	0
2	0	1	+1
3	3	3	0
4	0	1	+1
5	1	2	+1
6	3	2	-1
7	0	0	0
8	0	1	+1
9	0	1	+1
10	0	0	0
11	2	3	+1
12	0	1	+1
13	0	2	+2
14	2	4	+2
15	0	0	0
16	2	3	+1
17	1	1	0
18	1	1	0
19	0	0	0
20	1	1	0
21	1	2	+1
22	0	2	+2
23	1	2	+1
24	2	1	-1
25	2	3	+1

Table 11: Interviewees' Past and Current Consumption of Healthy Carbohydrates

Interview Subject	Past Intake of Healthy Carbohydrate Varieties	Current Intake of Healthy Carbohydrate Varieties	Differences Since Attending University
1	1	1	0
2	3	1	-2
3	2	2	0
4	2	2	0
5	2	1	-1
6	3	2	-1
7	1	2	+1
8	2	2	0
9	2	1	-1
10	2	2	0
11	2	2	0
12	2	2	0
13	3	1	-2
14	2	2	0
15	2	2	0
16	1	1	0
17	2	2	0
18	2	2	0
19	2	2	0
20	1	2	+1
21	2	2	0
22	2	2	0
23	2	3	+1
24	1	1	0
25	2	1	-1

Table 12: Interviewees' Past and Current Consumption of Unhealthy Carbohydrates

Interview Subject	Past Intake of Unhealthy Carbohydrate Varieties	Current Intake of Unhealthy Carbohydrate Varieties	Differences Since Attending University
1	3	7	+4
2	2	2	0
3	7	7	0
4	2	2	0
5	1	3	+2
6	3	3	0
7	0	1	+1
8	1	3	+2
9	2	3	+1
10	1	3	+2
11	1	3	+2
12	2	3	+1
13	1	2	+1
14	2	2	0
15	2	3	+1
16	3	3	0
17	2	2	0
18	1	1	0
19	0	2	+2
20	1	4	+3
21	3	3	0
22	3	3	0
23	2	3	+1
24	3	3	0
25	3	3	0

The above tables demonstrate the changes that many university students face as they acquire new dietary behaviors in a new food environment. For healthy dairy varieties, six out of the 18 international students report eating more healthy types, nine saw no change, and three students experience a reduction in their intake. Conversely, five out of the seven domestic

students saw no change in their consumption patterns, and two ate more types of healthy dairy products. For unhealthy dairy varieties, 12 out of the18 students in the international subset report eating more types of unhealthy dairy products, five experience no change, and one student reduces their intake.

I expected carbohydrate consumption to increase for all students based on previous studies of international (Alakaam et al. 2015) and domestic (Deforche et al. 2015) students. In the healthy carbohydrate category, two out of the 18 international students experience an increase in their intake, 11 report no change, and five admit to reducing their consumption of heathy carbohydrates. For the domestic subset, one out of the seven reduces their consumption of healthy carbohydrates, five experience no change, and one student admits to eating more types of healthy carbohydrates. As for unhealthy carbohydrate varieties, none of the students' report reducing their intake. Seven out of 18 international students experience no change, however, 11 admit to increasing their intake of unhealthy carbohydrate types. Five domestic students report no change in their intake, and two admit to increasing their intake.

Convenience Foods

As previously discussed, many convenience foods are generally considered to be unhealthy because they are often processed and contain high amounts of sugar, salt, and fat. When eaten in large or disproportionate quantities, they can the adversely affect the health and the eating behaviors of university students. Information derived from my participant observation suggests that domestic students often preferred to eat convenience foods over other types of cuisines. Visiting eating spaces within UCF's various dining halls, Student Union, and other on

campus eateries, I observed that most of the students seemingly prefer to eat either fast food or convenience food. At 63 South and Knightro's, pizza, hamburgers, chicken sandwiches, chicken nuggets, and fries are often chosen over healthier alternatives. At the Student Union, students can choose from a variety of combination meal or platter options. The most popular menu items are as follows: chicken tender and fries combo meals from Huey Magoo's, pizza and pasta bowls from Domino's, noodles/fried rice with a protein entrée from Asian Chao, tacos or quesadillas from Qdoba, and hotdogs with a side of fries from Nathan's. In the Breezeway, Chik-fil-A dominates the lunch and dinner rush. Students who dine here primarily choose original or deluxe chicken sandwiches served with a side of waffle fries. Moreover, students usually choose to drink soft drinks, and other sugary beverages as opposed to water or fruit juices. Notwithstanding such findings, I occasionally observed students that chose healthy dietary options; some preferring to eat salads and wraps from Corner Café or burrito bowls from Qdoba, but fast food is the predominate choice for students.

Additionally, the informal and recorded interviews yield important data regarding the frequency which convenience foods are consumed. Subject 1 says she ate lots of fast food and drank soda growing up, and admits that she eats it a few times a week and has a soda "from time-to-time." Subject 2 says that he eats convenience foods more often because they are more widely available; he eats four more types in the United States. Phillip says he ate fast food once or twice a month when he lived in China. He drinks soda as well. Subject 3 admits to consuming more convenience foods since coming to college. Casey still drinks soda as well. He says that he ate fast food a couple times a week when he was in high school; a habit that he continues to practice. Subject 4 admits that when he first came to university he ate convenience foods frequently, but

now he rarely eats them because he realizes how high in fat and sodium they are. Lee says that he ate no convenience or fast foods when he lived in Vietnam. Subject 5 did not eat convenience foods or sweets when he lived in India, now he consumes two types of convenience foods approximately twice a week. Raj does not drink soda or soft drinks.

Subject 6 says she ate convenience foods once every two weeks when she lived in Myanmar, but says that she eats less of it now that she's older. In addition, Quartz does not drink soda and she did not consume it back in Myanmar. Subject 7 did not grow up drinking soft drinks either; a habit that he did not acquire while attending university. Ling did not eat any fast food growing up in China, however he currently consumes five types of convenience foods at the dining halls. Subject 8 admits that he drank soda and ate a few types of convenience foods back in China. Sam eats three types of convenience foods in the U.S., but he no longer drinks soda because he views it as unhealthy. Subject 9 reports that she did not eat fast food very often in her home country nor did she drink soda or other soft drinks. She tries to limit her intake of convenience foods. Subject 10 says he ate fast food in China twice a month. Ringo reports eating fast food three or four times a week, but does not drink soda or other sugary beverages.

Next, Subject 11 drank soda as a youth but has since abandoned the practice because she views it as unhealthy. Ming did not eat fast food growing up but occasionally eats a couple types of convenience foods. Subject 12 says that he drank soda in China and currently limits his soda consumption to once a week. He occasionally eats fast food. Subject 13 says that he rarely ate fast when he was growing up in India, eating it once or twice a month. Zander avoids fast food when dining on campus, preferring to cook at home or eat rice and meat dishes. He occasionally drinks soda. He rarely ate convenience foods growing up, and seldom indulges at UCF. Subject

14 did not drink soda when she lived in Vietnam, and she only ate fast food once or twice a month. Georgia still does not drink soda, and reports that she does not eat fast food very often. Subject 15 never drank soda back home or exposure to American convenience foods. Drew does not eat fast food in the United States and still does not consume soft drinks.

Subject 16 says that she rarely drank soda at home; she seldom chooses to drink it in the U.S. As for fast food, Minerva adds that she ate it in the past. Subject 17 did not drink soda or soft drinks when she lived in Kazakhstan, she also did not have access to fast food. Ana admits that she started eating fast food when she came to study at American university, but does not eat it anymore since she gained ten pounds her first semester. Subject 18 did not eat fast food growing up and he does not currently eat it. Yan does not drink soda either. Subject 19 does not currently drink soda or eat fast food, and avoided eating convenience food and soft drinks when he was living in China. In his formative years, Subject 20 ate lots of fast food and drank soda, he continues regular consumption of convenience foods and soft drinks. Sean admits to eating lots of fast food and other types on convenience foods as a youth and as an adult as well.

Subject 21 occasionally ate convenience foods when she lived in China. In the U.S., Janie reports consuming less fast food. Subject 22 eats currently eats more types of convenience foods but says that he is more conscientious of high-fat and high-calorie foods now that he is older. Subject 23 eats less convenience foods than he did while living in China. Subject 24 consumes the same amount of convenience foods; the participant also says that he snacks more often now. Subject 25 currently eats less types of convenience foods; however, she reports snacking more and eating fast food.

Interview data demonstrate that students consume convenience food for a variety of reasons. Amy reports that these types of cuisines are a "fast and easy meal." Austin cites similar reasons, saying that it is "tasty and affordable." Conversely, domestic students Yan and Lee avoid eating certain convenience foods as they are aware of the unhealthy side-effects; their actions indicate that they try to implement restrictive eating behaviors. As for the international sample, most exhibit a greater awareness of health detriments associated with convenience cuisines. Accordingly, several demonstrate restrictive eating behaviors associated with cognitive dietary restraint as in the cases with Raj, Zee, and Chao (Moreira et al. 2005:229).

Portions

Portion size is another variable that was expected to influence eating behaviors and health. It is important to record the quantities of food which students eat to assess dramatic dietary changes. The data collected from interviews demonstrate that fluctuations are significant. Subject 1 says that her portions are slightly smaller; although, she snacks more and eats late at night. Subject 2 says that his large portion sizes have remained the same since relocating to America. Subject 3 says that since coming to college that his portion sizes are "…enormous, way bigger than they were before." He says that he ate medium portions when he was living at home. Subject 2 says that his portion sizes are large; about four to five plates of food, and that it is consistent with his servings when he lived in China. Subject 4 reports that his portion sizes are much healthier now, and that he eats less than he used to. He currently eats medium portions; around one or two plates of food. Subject 5 details how his portion sizes have diminished

substantially over the past few months he's attended UCF. Back home, he says that he ate medium portions; currently they are small; one plate of food at the most.

Subject 6 says he portions sizes are medium, and about the same as they were in Myanmar. Subject 7 says that he eats large portion sizes; which are about the same quantities as he ate growing up. Subject 8 admits that his portion sizes are medium, but he eats slightly larger portions now; he says, "30 percent more." Subject 9 says that her current portion sizes are medium, and that they have remained unchanged since she's moved to the United States. Subject 10 maintains that his portions; medium, are the about the same as they were in China. Subject 11 reports that she eats medium portions now, but the quantities she eats has increased slightly but that she exercises a high level of cognitive restraint. Subject 12 recalls how he ate larger serving sizes in China. He admits to currently eating medium portions. Subject 13 says that he eats medium to large portions, and feels that his food quantities have not changed dramatically. Subject 14 reports eating small-to-medium portions now; a decrease compared to what they were before. Subject 15 says that she eats small portion, the same as they were back home. However, she admits that her meal composition no longer includes as many carbohydrates.

Subject 16 claims that she eats medium portions; less than she did back in Bangladesh. Subject 17 reports that her current portion sizes are smaller than they were back home. She says that she eats less now because the dining halls use small plates. She admits that she gained weight her first semester at UCF. She eventually learned to portion her food correctly as she adjusted to the on-campus food environment. Subject 18 says that his portion sizes range from medium to large. He admits that the quantity of food he eats at every meal has doubled since he started attending university. Subject 19 declares that his portion sizes were medium back in

China; however, they are now smaller since he started eating on campus because it is sometimes difficult for him to find familiar foods. Subject 20 reports that he ate medium portions growing up, but now they are much larger; he eats four to five plates of food per meal period.

Moreover, Subject 21 says that she ate medium portion sizes; one to two bowls, growing up in China and that her serving sizes have remained static. Subject 22 reports that he eats medium servings, but his portions have increased slightly since attending college overseas. Subject 23 says that he eats medium portions sizes; quantities similar to what he consumed back home. While Subject 24 reports eating medium-sized portions, he does admit that his portion sizes are larger than what he ate in his household. Subject 25 reveals that her portion sizes are medium, but still larger than what she consumed in high school.

In terms of portions, the data demonstrate that students face challenges regulating consistent meal compositions within an on-campus foodscape. Further analysis reveals that students experience; sometimes drastic, changes in their portion sizes. Subject 12 eats less now because the food in his home country food tastes better, and is more familiar. He mentions that on a recent visit to see his family in China that he gained around ten pounds since he enjoyed eating national cuisines so much. Subject 14 comments that, "we eat a lot back in Vietnam," which may be responsible for her reduced serving sizes. Subject 16 claims her portions are smaller since she does not have adequate time to cook or prepare national cuisines. Subject 19 says his portion sizes have decreased because "sometimes I can't find anything good to eat [on campus]." Subject 25 says that the increase in her serving sizes, and an "all-you-can-eat" meal plan contributed to weight gain during her first semester at UCF.

Interviews with international students reveal that they maintain portion sizes consistent

with their servings while living in their home country. Interviews with domestic students indicate that many of them saw an increase in their portion sizes; some report that they eat much more than they did at home while other ate marginally larger portions. Findings indicate that international students are more likely to eat small to medium portions when relative to their domestic counterparts. Domestic students are more likely to increase their portion sizes from medium to large upon entering a university foodscape. Conversely, ten members of the Asian sample population admit that they eat similar portions to what they ate at home. Three Chinese participants report eating slightly more. Additionally, five of the international students eat less than they did at home, citing they either did not have time to cook national cuisines they enjoyed the most, or they were unable to access a nutritious, culturally-appropriate meal as in the case of Raj. He says that he rarely eats until he is full, he says that "eats to survive" and no longer for a pleasurable experience.

Two students from the domestic sub-set of interviewees report that their portion sizes have decreased since attending university. Five out of the seven domestic students admit that their portion sizes increased from when they were living at home; three male students detail that their portion sizes have "doubled" or "tripled" in size. Participant observation and the questionnaire survey corroborate these findings. In the dining halls, Student Union and the Breezeway, male students are often observed eating two or three times the suggested serving size for meals; however, females tend to maintain healthier portions sizes.

Also notable is the fact that international students are more likely to eat what is on their plate, and less likely to retrieve more food items that are beyond their capacity to finish. Participant observation reveals that domestic students; especially males, were more likely to go

back for multiple portions of food items despite being unable to finish what is on their plate. Not only does this behavior affect individual portions, it may contribute to food waste. The grand scale of food waste is critical issue concerning Americans who are the biggest contributors of waste in the world (Gerlick 2014:1-2).

Participant Observation

Participant observation reveals findings that are consistent with survey data and interviews. Students in the dining halls, Student Union, and the Breezeway often eat portions that are two or three times normal size. U.S. students tend to eat larger portion sizes, and on average consume over three plates of food in the dining halls. Occasionally, I saw students order an extra entrée or eat two combo meals during one meal period. In the dining halls, Student Union and the Breezeway, I frequently observed domestic male students eating two or three times the suggested serving size for meals. One observation in the dining hall demonstrates my point:

> "There are three male athletes sitting in the corner of the restaurant…they each eat around four to five plates of food. They have double portions of grill options, chef's plate items, and pizza. Only one of the males eats a small side salad with cucumber, carrots, tomato, and salad dressing. They drink soda. None of them drink water. The basketball players eat at a quick pace, chewing their food for a few seconds before swallowing. They go for the pizza first. They eat grilled chicken sandwiches with their hands. Two of the basketball players pick off the bun. They eat fries…they finish of the items on their plates. They leave pizza crusts, and the buns off. So far, they are about six into their meal...their meal reaches completion after ten minutes."

Structured and Unstructured Meal Times

Beyond portion size, meal duration is another variable that warrants consideration. Specifically, I implement Alakaam et al.'s (2015:109) definition of "traditional" or structured eating patterns which generally refer to specific, consistent meal times/eating behaviors. Their research (2015:109) also suggests that "U.S. dietary patterns" lack consistency and structured

meal elements. My interviews yield important data regarding "structured" and "unstructured" eating habits. Specifically, the term *structured* refers to students who eat at least three meals a day at regular times while *unstructured* refers to students who eat at erratic times of the day, skip meals, or frequently snack. During the informal and recorded interviews, participants are asked both about their current meal times and meal periods back home. All the international students maintain that they ate at structured times while living at home. However, only three out of the seven domestic students report eating at fixed meal times in their original household.

Ten out of the 18 international students report eating at regular meal times similar to their meal periods in their country of origin. Five members of the international sample admit that they do not eat at structured times; although, they indicate their desire to implement fixed meal times. In addition, when probed as to why they do not eat at structured meal times the international students cite that they skip breakfast because of their class schedules. One out of the seven domestic students eat at structured meal times whereas the other six students claim that they skip meals, snack often, or eat late at night. The differences in structured eating behaviors are consistent with my original expectations.

Consumption of Traditional Food Items and National Cuisines as Resistance

Another critical aspect of my thesis is the frequency in which international students consume traditional food items or national cuisines. Throughout my study I apply Alakaam et al.'s (2015:113) definition of "resistance," which they associate with respondents' intentional decisions to eat traditional foods and national cuisines over unhealthier options. Dissimilar to their research (Alakaam et al. 2015) which addresses the explicit intention of international

students to privilege national cuisines, my sample demonstrates resilience as an unintended consequence of their meal choices and eating behaviors. All 18 of the international sample population report that they eat traditional foods or try to cook national cuisines. As mentioned previously, international students enjoy preparing foods that they are familiar with. Nevertheless, certain traditional foods like egg rolls and lo mein contain unhealthy amounts of MSG, oil, and require frying for preparation. However, most international students recall limited consumption of fried foods and typically prepare dishes featuring fresh, healthy ingredients.

All the international students reportedly ate traditional foods while residing in the U.S. Ten out of the 18 international students admit that they eat national cuisines at least twice a week. Four report that they eat traditional foods three to four times per week. One Vietnamese student, Andy, eats traditional foods every day, and one Kazak student says that she only eats national cuisines on special holidays or events. Two of the domestic students, Lee and Yan (both were born outside of the U.S.), admit that they eat traditional foods twice a month when their family visits or they go out to eat at ethnic restaurants. Most of the international students prefer to cook on campus or at their friends' residences as opposed to dining at ethnic restaurants. A few of the international students note that food cost at specialty eateries is too high to habitually indulge.

The five native-born American students report that they do not eat any ethnic traditional foods or national cuisines. Austin insists that although there are plenty of ethnic restaurants in the greater Orlando area; he remains "unfamiliar" with these types dishes. This is primarily why he does not eat them.

Hybridization

Hybridization is another aspect of transculturation observed during the research study. Asian international students hybridize their diets both on and off campus, such practices may account for their resistance to unhealthy dietary behaviors. My participant observation suggests several key events that indicate international students modify aspects of their established dietary habitus (DeWalt and DeWalt 2011). There were many occasions where I witnessed Asian international students; some of which I had interviewed, taking vegetables and hot water from the tea station and combining the two along with a vegetable broth to create a make-shift "pho" item. Plasticity, and healthy meal choices are demonstrated in the following observation:

> "I recognize international students from UCF GLOBAL…the group includes three males and one female. The female uses a fork and knife to eat salad. Sitting next to her is a cup of hot water and an empty bowl. One male wearing a blue shirt with a pattern on it eats a salad, honey dew and cantaloupe melon, wheat toast, and a bowl of soup. Another male wearing a red shirt is eating a sandwich with a fork and knife; very careful not to touch the food directly with his hand. The other male in the dark jeans eats what appears to be a boiled vegetable, a salad with carrots, cucumbers, beets, and raisins, and a cup of soup. He eats a plate of turkey on the side. They look like they have just started eating. After I couple minutes I see the female take her vegetables (spinach, carrots amongst other things) put them in the empty bowl and pour hot water on them to create her own soup."

After I watched her take bites of her hybridized item, she appeared satisfied with her creation and finished every bite. Pho is not regularly served on campus, so if students who lack a kitchen are unable to make their own at home they use this technique in the dining halls. Occasionally, I saw other students engage in similar form of food modification; they would use hot water or broths from other soups and add vegetable/protein items. Although it is not preferable, it offers a little taste of the familiar. I observed most of the hybridization in UCF's main dining halls, Knightro's and 63 South. Other on campus eateries make it difficult for

students to modify their meals in idiosyncratic ways, such constraints limit the "agency" of international students and the amount of control they have over the foods (Smith 2013:103).

Commensality

On commensality, or the degree to which eating is a social activity, international students appear more likely to eat national cuisines or traditional food within large groups of friends. These groups are comprised of either other international students or visiting family. Domestic students appear more apt to eat alone or in small groups. These networks may provide a way to resist unhealthy eating behaviors and maintenance of a structured "dietary habitus" (Sato et al. 2016). Overall, international students are eating together in groups for extended meal periods of anywhere between 30 minutes to an hour. Most international students average 45 minutes per meal. Domestic students seem less likely to eat together and for longer meal periods of time. Most finish their meals in ten minutes or less.

The convenience and accessibility of fast food on campus also contribute to the short duration of student meals. In this instance, convenience is one factor altering cultural norms and established perceptions regarding healthy meal structure. Regarding food preference/choice, interviews support my hypothesis; they reveal that international students eat more varieties of healthy protein sources, vegetables and fruits, which is associated with structured eating behaviors and higher levels of nutrition. These findings show that there are a multitude of factors which differentiates between international and domestic in the context of food preferences. The findings suggest that cultural variables, and issues of accessibility are at work. Furthermore, as

with commensality international students' preference for national cuisines offers unintended resilience to unhealthy, rapidly-prepared foods.

CHAPTER SIX DISCUSSION

Introduction

In this chapter, I discuss my preliminary perception of international students and revisit two of the research I questions presented in my introduction. Next, I review how meal hybridization can help international students adjust to a new food environment in the absence of familiar national cuisines. Following this, I outline the differences between national and American foods and their nutritional standards. The next section, I examine this study's major findings. Finally, I provide details about my own experience dining on campus.

Preliminary Observations

Before I decided to study diverse student diets at UCF, my experiences with international students were confined to a few interactions I had while working at 63 South. Conversations were primarily limited to small-talk and casual conversation. I was admittedly oblivious to the many issues and dilemmas that international students face when they transition to higher education. While they would sometimes ask me about food, there was never an apparent indication of stress or anxiety over food items. Most of my dining hall interactions were limited to domestic students and coworkers. Occasionally, I interacted with international students outside of work settings. I would wave and greet students that I recognized as guests from 63 South. While I also knew international students from my classes, most of the interactions were superficial and usually pertained to the class.

Originally, I was nervous that I would be unable to recruit enough participants. I soon found that there are several UCF organizations that offer services to international students and

access to diverse student populations. Accordingly, the assistance of GLOBAL UCF proved to be invaluable. They provided me with access to not only international students, but also a familiar environment outside of the dining hall where the research participants felt comfortable enough to engage in conversation.

Research Questions Revisited

My ethnographic findings address the two primary research questions: (1) How do Asian international students at UCF currently construct meals?; and (2) how do their current on campus food choices compare with what they typically ate in their country of origin? I am effectively able to answer both research questions with data collected from questionnaire surveys, participant observation, and interviews.

Hypothesis Revisited

My hypothesis argues that if the sample population reports eating meals composed in similar ways to what they commonly ate at home, they will continue to eat healthy, and develop fewer dietary health problems compared to their domestic counterparts. Under this hypothesis, I predict that students who maintained their *dietary habitus* and meal composition of their home country that it will produce healthier dietary outcomes. My study is divided into two respective phases based around data collected through questionnaire surveys, participant observation, and interviews.

There are several to eating behaviors that I identify such as eating erratically, eating fewer servings of vegetables and fruits, and increased consumption of processed and rapidly-prepared foods. However, this study reveals that there are obstacles such as limited food

accessibility to healthy cuisines and changes to dietary habitus that influence health and nutrition. These challenges specifically pertain to international students' eating behaviors undergoing changes as a result of adapting to a new university foodscape. In this research, the consequences of dietary changes were associated health detriments including weight gain, unintended weight loss, indigestion, heartburn, and undernutrition which are self-reported by interview subjects. There are several factors that may contribute to these changes such as campus foodscapes, campus environment, time-constraints, individual nutrition, and cultural/religious beliefs. Findings are consistent with previous studies (Alakaam et al. 2015, Amos and Lordly 2014) which address similar factors as they relate to meal choice and individual nutrition.

Some of my qualitative and quantitative findings suggest that students privilege national cuisines over fast food items. That said, access to national cuisines is limited which may lead the international sample to choose fast food over more healthy alternatives. As noted in the interviews, international students prefer to cook traditional foods but food cost, preparation time and accessibility present challenges. Findings suggest that international students eat more fruit and vegetable varieties compared to domestic students. Thematic elements pertaining to student's home environment and the impact of the maintenance of healthy dietary behavior suggest that the relationship warrants further exploration. Overall, data show that the international sample eat more varieties of vegetables and fruits, maintain healthy portions sizes, and exhibit more consistent meal times. My study demonstrates that international students prefer to eat mostly home-cooked national dishes as they generally perceive such fare to be more healthy/nutritious, better-tasting, and emotionally satisfying. Findings are consistent with previous studies by Alakaam et al. (2015), and Amos and Lordly (2014). The next subsections

address specific interpretations of the collected data and elucidate some of the patterns which skate out along lines of age, nationality, ethnicity and residency status.

National Cuisines Versus American Convenience Cuisines

Integral to the survey component of my thesis are notions that cultural differences create distinctive attitudes about food preference and perceptions of health and nutrition. This outcome is reliant upon differentiating between varying food choices, individual nutrition, and determining specific food perceptions based on ethnicity and residency status of participants. Bourdieu's (Sato et al. 2016:174) description of the "dietary habitus" which maintains that one's dietary choices can be modified or hybridized based on the context of one's environment is of particular importance in this regard. Considered against this conceptual backdrop, convenience/processed foods such as hamburgers, hotdogs, and pizza have strong associations with American meal compositions, while healthier options such as vegetables, fruits, and unprocessed foods, reflect a structured dietary habitus found in many Asian cultures. Interviews and surveys demonstrate many students' association of "American foods" with primarily convenience foods even as two international students felt that "salads" were an integral part of the American diet.

Both sample populations illustrate varying preferences for corporate fast food eateries. As expected, interviewed international students are much more descriptive when they discuss national cuisines and types of traditional food items. Most of international students discuss individual vegetable types and varieties. Specifically, more exotic types as they are familiar. Conversely, domestic students are unfamiliar with many of the exotic varieties of vegetables and

fruits. This deviation possibly indicates cultural differences in food preference which may reflect established “dietary habitus” and cultural associations (Sato et al. 2016:174). In terms of perception and health, both groups acknowledge that fast food is unhealthy. However, more international students are privy to make this association, while utilizing a far more informed knowledgeability of nutrition. Other types of cuisines they consumed on and off campus include: Chinese, Japanese, Korean, Mexican, Italian, American, and Thai. Nevertheless, the foods that were most preferred were students’ own national cuisines.

Interview findings demonstrate that Asian international students are best able to maintain their dietary habitus when compared to their American counterparts. Simultaneously, they are less likely to consume unhealthy carbohydrates and starches and more likely to maintain healthy levels of fruits and vegetables. Taste and flavor are variables that affect this differentiation.

Flavor

Unsurprisingly, many international students find the flavor profile of American cuisines to be very different than their home cuisines. This differentiation is illustrated in Brown et al.’s (2010) study, which shows that English foods are perceived by international students living in the U.K. to be bland and flavorless. This supports the significance of cultural gaps and the level of “culture shock” for international populations (Brown et al. 2010:202). In this study, however, all international respondents, regardless of their ethnic and cultural origin, make statements regarding the blandness and tastelessness of local American convenience foods, especially those featured at various on campus eateries.

Quartz, an international student from Myanmar states that American foods, “have no flavor at all. Back in Myanmar everything had spice and good flavor.” She also complains that there is little variety in what is served day to day, calling it “boring” and describing the foods as “always the same.” Another student, Lee, notes that he eats less now because he no longer eats for “enjoyment” since the food in the U.S. does not satisfy his desire for flavor complexity. Moreover, some international are befuddled by American convenience foods’ lack of flavor. Despite the high levels of fat, salt, and sugar found in fast food and other types of rapidly prepared items, they still find this type of fare mostly flavorless. According to Brewis (2012) the daily sugar intake of the average American is considerable compared to other nations, particularly Asian countries, where traditional cuisines with lower levels of sodium and fat are prevalent (Alakaam et al. 2015:105**).** Most of the international students express that American desserts are too sweet. international students, Tom from China exclaims, “American desserts are overwhelmingly sweet! Sometimes I have to spit it out!”

Alternatively, none of the domestic students feel that certain dessert items are overly-sweet or too bland. They generally describe convenience foods as tasting good and possessing adequate flavor; although, two students think that the cyclical menu at the dining halls are redundant. Conversely, Zee characterizes the recycled menu items as helpful for recognizing unfamiliar food items. Findings suggest that flavor is both a catalyst and deterrent for eating unhealthy foods. Lacking the familiar flavor profiles, spices, and seasonings from their home country, several international students describe the monotony of American foods.

Hybridization

Another important theme that emerged from my thesis findings involve the concept of *meal hybridization* amongst international students; an idea explored in other socio-cultural studies (Alakaam et al. 2015, Amos and Lordly 2014, Tam et al. 2010). *Hybridization* refers to the incorporation of national cuisines or traditional food items into international students' meal compositions. International students demonstrate hybridization in various ways. Specifically, this becomes apparent in terms of food preparation and consumption. As mentioned in the previous chapter, international students choose to eat national cuisines that are prepared by friends or they prepare themselves. During interviews, Minerva, Andy, and Tom expressed how cooking their national cuisines enhances their dining experience. Eating familiar foods can be emotional for students who are feeling home-sickness or the effects of culture shock (Amos and Lordly 2014, Brown et al. 2010). As with the interviews, the surveys also find that international students eat traditional foods twice or more a week, and hybridize aspects of their diet. One of the female survey respondents reports that her diet back in Hong Kong was hybridized long before she moved to Orlando. The diverse food culture and high density of foreign populations in her Hong Kong may explain the subject's significant exposure to American-style convenience foods and her integration of non-national cuisines into her diet.

Food habits are one of the lasts aspects of a foreign student's cultural values to be assimilated. Food is so closely associated with identity, and how individuals self-identify. Recreating national cuisines serves a dual purpose of offering both sustenance and emotional support (Amos and Lordly 2014). Most international students report that they primarily cook on weekends with their roommates, colleagues, or friends. A few students recall making soups, that

take hours to prepare and cooking traditional noodle and rice dishes from their respective countries. The "slow-cook" traditionally methods utilized in Asian households also holds an equivalence with health and food preference. Remarkably, two of the respondents from my international sample are able to improve their diets since moving to the U.S. Through hybridization Ming and Andy are now able to modify their diets and maintain their eating behaviors in addition to healthy proportions of fruit and vegetable varieties. Their consistent meal times, moderate portion sizes, and food choices all contribute to a structured dietary habitus which is a result of their home environment and upbringing.

Despite a reluctance to abandon the food of home, international students make it clear that they are open to new food cultures and experiences. With access to a diverse range of cuisines offered by their friends and colleagues, as well as what is offered on campus, a genuine acceptance of new cuisines and types of foods persists. International students do not typically reject foods that are unidentifiable or unknown; although, several respondents complain that they were sometimes confused as to what they were eating or that the food was bland but they were open to new dietary experiences. The research endeavor reveals an acceptance of and proliferation of new food and a concurrent retention of origin dietary habitus. Maintenance of eating behaviors and food selections indicates that the international sample attempts to modify their campus food environment. They utilize free will and plasticity within the new culture; exercising their individual "agency" (Smith 2013:103).

Resistance to Unhealthy Eating Behaviors

Analysis of the surveys and interviews reveal that international students ultimately have more variety in their meal composition in comparison to domestic students. However, most international students eat less varieties of fruit and vegetables in the U.S. compared to what they ate in their country of origin. Since fruit/vegetable varieties from their home countries are not readily available in American grocery stores their consumption of micronutrients is substantially reduced. Nevertheless, they are still able to maintain moderate levels of variety whereas many domestic students experience a decreasing variety, specifically, with regards to fruit and vegetable intake. I associate their preference for fresh foods, and higher intake of vegetable and fruit varieties with "resistance" to American convenience foods described by Alakaam et al. (2015:113). Additionally, participant observation demonstrates these findings in several instances. One observation of American students reveals lapses in nutrition:

> "Two, white female college in their late teens/early twenties students sit down at 6:47pm, and begin to eat their selections from grill; ham and cheese sandwiches with curly fries. They chew their food for approximately eight second increments. They remark that the sandwich is good but one girl is worried that the Montecristo is "a little greasy." The other girl agrees and says that the curly fries, 'can't possibly be good for my diet.' One girl complains that she was 'so much skinnier' in high school. Their meal lasts for ten minutes, ending at 6:57pm. They do not finish all their curly fries. Their meal is virtually deficient of micronutrients."

A formerly structured dietary habitus in combination with "resistance to dietary changes," which Alakaam et al. (2015:113) addresses in their research study, may be responsible for the maintenance of vegetable and fruit varieties as stated by my working hypothesis. As I previously mentioned, the resilience to unhealthy convenience foods is unintentional. International students report eating in structured environments and having relatives who take an interest in their individual nutrition. Findings also indicate that most domestic students did not

grow up in households that privileged fruits and vegetables. Other research endeavors confirm that American households are not demonstrative of structured eating behaviors (Deforche et al. 2015, Quick and Byrd-Bredbenner 2013).

Meal Times and Structured Eating

Domestic students are less likely to eat at specific meal times and were more prone to eating erratically; that is they often eat late at night or skipping meals entirely. International students report that at home they ate at specific, structured times. Those who maintain a similar dietary habitus are more likely to eat at structured times while living away from home in a vastly different food environment. The maintenance of meal structure is an issue for six domestic students I interviewed. Three out of six informants state that their work schedule and course load makes it harder to eat at normal times of the day. One of the domestic students; Austin, states: "my work schedule is a little crazy…I work late at night so sometimes I eat past midnight if I eat at all." Additionally, another undergraduate; Sean, states: "I eat when I feel like it; sometimes that isn't until late in the afternoon…dinner is variable too because I could eat at eight o'clock or I could be eating at four in the morning."

Snacking is another eating behavior I examine in my thesis research. If international students did snack in between meals they usually chose healthier convenience alternatives as opposed to high-calorie, low-nutrition convenience foods. The international prefer snack foods such as granola, seeds, nuts, fruit, salads, rice cakes, olives, cereal bars, pretzels, popcorn, yogurt, and kefir among others. Furthermore, domestic students who eat at inconsistent times are more likely to snack frequently in between meals. While two of the interviewees from the

domestic sample choose low-calorie snack foods the majority of the sub-set choose to consume chip/crisp varieties, candies, cookies, pastries, pizza, beef jerky, ramen, French fries, and microwaveable convenience foods as their primary snack foods.

Distracted eating is another behavior that influences structured eating and health. *Distracted eaters* refer to individuals who eat while using mobile devices/laptops, watching television, or intensively reading. This behavior is not uncommon for many college students in UCF's dining halls and Student Union. One observation reveals:

> "Three of the college students have their laptops out, two wear headphones in their ears and are staring at their cellphones, and the other two are talking to one another while occasionally shifting their focus to the CNN playing on the television screen. The students absent-mindedly eat their respective meals, not paying much attention to what and how much they are eating…they go back four five more portions."

Conversely, international students use technology less while they eating. That does not mean that they are not engaging in any distracted eating behaviors. International students occasionally check their phones or using computers while they dine. Since international students often eat in large groups, they are often more engaged in the dinner conversation than they are texting or talking on the phone.

Observations indicate that lengthier meal times coincide with structured eating behaviors because students who dine for longer periods of time chew their individual pieces of food into smaller pieces, allowing for easier digestion. Masticatory processes are the first line of defense against over-eating. Students that practice longer periods of mechanical digestion feel satisfied sooner since their stomach has adequate time to send the "full" signal to the brain (Nall 2015).

This study finds that the dual preparation of cooking and consumption of foodstuffs is an important activity for international students when they are not attending academic or work

responsibilities. In addition, of those with contact to other members of the international sample population, eating is both a social and physiological performance. Social networks reinforce healthy eating behaviors. Food choices allow international students to convey and replicate an important aspect of their home culture. Food therefore plays an integral part in both the creation and facilitation of socio-cultural relationships. Other anthropological studies support my findings, and emphasize the sociality of consumption, and that eating and social cohesion are often associated with one another (Amos and Lordly 2014, Binge et al. 2012, Brown et al. 2010).

Health Consequences

Problematically, unhealthy eating pathologies can develop for international and domestic students alike. Some unhealthy eating behaviors that I observed are under-nutrition as in the case with Raj and over-nutrition in the cases with five domestic American students. Amy and Ana both admit to stress and emotional eating when they first arrived at UCF. Their experiences corroborate findings by Deforche et al. (2015:1-2) about the phenomenon known as "the freshmen 15." Additionally, students report that eating convenience foods can result in digestive issues. For example, Ringo, an international student, claims that he must watch what he eats or else he might experience "excruciating heartburn." Tom, another international student, admits that he has similar issues and tries to limit convenience foods as they can cause discomfort. Indigestion, diarrhea and heartburn are three side-effects that international students mentioned as a result of eating American-style convenience foods.

The increased consumption of unhealthy types of American convenience foods is not surprising. The study finds that international undergraduate and graduate students experience

challenges modifying their eating habits after moving to the U.S. Previous research endeavors confirm these findings in terms of international students' changes in dietary habitus from a diet of national cuisines to more Americanized eating habits (Alakaam et al. 2015, Amos and Lordly 2014, Pan et al. 1999).

Moreover, several other variables influence the consumption of healthy foods and national cuisines. Respondents mention that their limited consumption of traditional food is due to time constraints, expenses, and lack of accessibility. Results coincide with earlier studies that focus on dietary changes after relocation (Alakaam et al. 2015, Amos and Lordly 2014, Hang 2015).

Limitations

The creation of etic categories of health and nutrition may impact the overall analysis of the data. Nevertheless, I stand by my decision to implement them because self-reported operationalization is difficult to put into objective categories as well as time consuming. Several other factors limit the scope of my study.

The study's initial phase surveys food preferences, portion sizes, and meal compositions of UCF undergraduates and graduate students. Notably, undergraduates are selected because they often find themselves making independent food choices in an environment where there is a high propensity of convenience foods in a confined geographic area. Moreover, because there is no set age limit for UCF enrollment, I set the age limit for 30. I decided to set the inclusion criteria to age 30 since many internationals students who attend American universities obtain postgraduate degrees, and may be living away from their home country for the first time. First, by primarily

interviewing 18 to 30-year-old students, I am limited to a particular age demographic. Students over the age of 30 are not included my study because they either been residing in the U.S. for a period of longer than two years are excluded from my inclusion criteria. Furthermore, older students usually maintain an established dietary habitus; which decreases the likelihood of vulnerability in an on-campus foodscape.

Second, language barriers between me and the research subjects result in lost data due to several communication issues. Most of the interviewed international students are from China which may lead to a bias in my sample population. Additionally, of these Chinese respondents six are freshmen and only recently relocated to the U.S. Since most of the undergraduates are still learning English as a second language they only have a rudimentary knowledge of food related vocabulary in English. During my research, interviews with international students were at times halted if the respondent was unable to recognize a specific food item or had difficulty explaining aspects of their national cuisines. International students often had to look at their phones to translate certain food items or ideas. There were two instances where the respondent spent so much time looking up their translation that it prolonged the interview by several minutes. However, the photo-voice component eliminates some communicative concerns. Communication barriers like these should be considered for future research studies.

Third, since my survey is not multi-sited but relegated to one college campus, my findings may have limited relevance beyond institutes of higher education dissimilar to UCF. Therefore, cultural exclusion might be an issue and reservations must be taken when generalizing these results onto a more generalizable international student population. Fourth, the survey also records the food choices and meal frequency, which is necessary to ascertain data regarding

individual meal composition. However, all the data are self-reported which results in some level of bias or error. Not only may respondents overestimate or underestimate these the frequency in which they consume traditional and non-traditional food items in the past, they may inaccurately remember the food items they ate growing up. Furthermore, for some questionnaires, respondents did not fill out their surveys in enough detail which led me to omit data on their consumption of carbohydrates and dairy products. Nonetheless, the findings provide compelling information regarding food choice, meal frequency, portion sizes, and consumption of American and national cuisines.

Personal Experiences

As a UCF student and an employee at 63 South since 2009, I have first-hand experience with the on campus food environment. My experience as a student worker and patron afford me the opportunity to observe international students for a little over a half of a decade.

Admittedly, I tried food options from every single vendor on campus. I believe my familiarity with the local foodscape warrants some discussion. As a former food service worker at the dining hall I served and prepared many of the dishes served at the Ferrel Common location. I have extensive knowledge regarding the types of fruits, vegetables, proteins, starches, carbohydrates, desserts, and beverages featured which proved to be invaluable over the course of my research study.

At 63 South, I was usually assigned a cold preparation position which entails preparing many of the ingredients and main protein dishes for the sauté station. Additionally, I was charged with prepping various vegetable and fruit items for the salad bar. Depending on the station, most

of the fruits and vegetables are fresh except for frozen strawberries, blueberries, corn, and peas. Pizzas are made fresh daily with home-made dough, but the sauce and cheese are entirely processed. Working for 63 South, I became aware of the various frozen products served in the dining halls. Most of the pork, beef, chicken, fish and seafood products come frozen from a delivery truck. The presence of frozen cuisines as opposed to fresh foods may explain why so many international student feel dissatisfied with on campus protein options.

As a student diner, my experiences with on campus eateries are mostly pleasant notwithstanding a few occasions where I was served undercooked and/or overcooked food. Sometimes the restaurant was out of product which was upsetting for other student diners. When I usually eat on campus I go to either Corner Café with their fresh sandwiches and salads or Knightstop & Sushi because their products are usually fresh and taste pleasing. I nornmally try to avoid eating at my place of employment when not on duty as the menu has become redundant after the first two years.

I agree with the interviewees that the cyclical menu known as “Campus Dish” can seem repetitive, leading one to believe that dining options are confined to a few “tried-and-true” recipes that satisfy the palettes of predominately American students. I empathize with the international students’ sentiments that on campus food is bland, the campus is oversaturated with inexpensive convenience foods, and that there is a general lack of accessibility to healthy, fresh meals. However, the dining halls are one of the few places that offer fruit, vegetables, and vegetarian option. This still holds them above the competition like Asian Chao and Huey Magoo’s which feature menu options often lacking in balanced nutrition.

CHAPTER SEVEN: CONCLUSION

To conclude, my research findings indicate that international students and domestic students face various challenges associated with acclimating to university life. The stress of relocation and lack of familiar symbols and signs can trigger or exacerbate unhealthy eating behaviors. Overall, most international and domestic students experience a reduction in fruit and vegetable intake whereas only two students achieve more diversity in the college foodscape. In addition, the consumption of convenience foods increases for most respondents. Findings parallel with conclusions drawn by other research studies (Alakaam et al. 2015, Amos and Lordly 2014, Brown et al. 2010, Pan et al. 1999, Valladares et al. 2016) which detail the nutritional changes in dietary habitus among international populations. Research findings also mirror Binge et al.'s (2012) assertion that on campus dining options and accessibility complicate students' ability to negotiate healthy food choices.

Moreover, results suggest that Asian international students are susceptible to confusion when it comes to the food choices offered by the campus foodscape. Interviewees reveal that were at times unable to identify commonly found protein sources in addition to "domestic" fruits and vegetables. Interview and survey findings indicate that domestic students also experience similar reductions in vegetable and fruit intakes. Correspondingly, U.S. undergraduates saw increases in their consumption of convenience and fast foods despite being aware of associated health risks.

Although initially, it seems that domestic students are better adjusted to university life and campus foodscape, this may not be the case. Most domestic students report eating less healthy and diversely than at home. Moreover, domestic students consume greater quantities

convenience foods compared to their international counterparts. In fact, international students report that they eat less fast food in the U.S. because they are aware of the deleterious side effects associated with eating foods high in fat, sugar and sodium. In terms of portions, approximately half of international students say they are able to maintain healthy portion sizes similar to what they eat in their home country. Similarly, more than half of the international sample maintain structured meal times comparable to meal periods in the household where they grew up.

This research endeavor considers the function of food and eating behaviors of a sample of American undergraduates, and international students at the UCF. The study suggests that international students prefer to primarily eat national cuisines, cooked at home because they perceive this food to be superior in terms of health, taste, and comfort. Food from their respective home cultures serves as a sort of reminder of their cultural identity and offers emotional support. Food also plays an important role in the social life of interviewees. Meals became an event where food is consumed and social bonds are reinforced. Overall, international students express their opinions about the deleterious effects on physical health as a result of eating American-style convenience foods and convenience foods. Moreover, in terms of familiarity; low food cognition may limit the variety found in international student diets and can lead to over/under nutrition.

In conclusion the transition from high school to university subjects UCF students to a greater risk period of weight gain, undernutrition, and undesirable changes in activity levels, sedentary behaviors, and decreased fruit and vegetable intake. That said, international students

who eat structured diets back home have a higher likelihood of maintaining healthy meal compositions despite experiencing a reduction in vegetable and fruit varieties.

Implications and Significance

When considered altogether, my research findings may lead to a more informed awareness about the positive and deleterious effects of moving to new environments or living away from home for the first time for both domestic and international Asian students. More importantly, they provide a better understanding of how to promote foods which incorporate cultural sensitivity to international demographics in a diverse university environment like UCF's. Similar studies (Amos and Lordly 2014, Binge et al. 2012) support academic institutions taking positive steps to ensure that students have relative accessibility to healthy and nutritious foods. Creating programs that educate international and domestic students about the detriments of calorie-dense foods, unhealthy food, and under/over-portioning may help students to both incorporate healthier options into their diet and develop better eating habits.

There are many reasons why meal composition may change over time. My research holds significance since it seeks to understand the students' decision to choose specific meal compositions based on their individual food habits. Additionally, the notions of nationality, residency status, nutritional environment, and food quality adds to a body of research that supports the idea that dietary choices are a hybridization of perceptions. Cultural and social factors provide insight into why people eat specific items or consume food in patterned ways. Finally, research findings elucidate some of the reasons why students choose healthier foods that

they perceive as having healthy qualities and why they consider such fare to be nutritious in the first place.

APPENDIX A: DINING SURVEY

ON CAMPUS DINING SUVEY 2016-2017

Age: ___

Sex:
__ Male
__ Female

School: _____

Answer the following questions as they relate to you. For most answers, check the box that most applies or fill in the blank. You do not have to answer any question you do not wish to answer. By completing this survey, I acknowledge that I am at least 18 years of age and give my informed consent to participate.

DINING ON CAMPUS

1.) How often do you dine on campus? (Check only one box)

__ Never

__ Once a month

__ 1-2 times per week

__ 3-5 times per week

__ At least once a day

__ Multiple Times a day

2.) Which of the following ethnicities do you identify as? (Mark only one choice):

__ Southeast Asian (Please specify): _____ __ African-American __ Hispanic/Latino

__ East Asian (Please specify): _____ __ Asian-American __ White/Caucasian

__ Middle Eastern __ Hawaiian/Pacific Islander __ Other: _____

3.) Are you an international student?

__ Yes __ No

4.) What year in school are you currently?
__ Freshmen __ Sophomore __ Junior __ Senior __ Graduate Student

5.) Are you an international student living in the U.S. for the first six months to two years?

__ Yes __ No

6.) Is food on campus healthy/nutritious?

__ Yes __ No

7.) Are meals on campus a formal meal, a snack, or both?

__ Formal Meal __ Snack __ Both

8.) Is on campus dining convenient?

__ Yes __ No

9.) In terms of nutrition, on campus meals are: (Check only one box)

__ Good for you
__ Bad for you
__ Neither good nor Bad
__ Don't know

10.) Where do you usually eat on campus? (Check only one box)

__ Dining Halls
__ Student Union
__ Fast food
__ Other

11.) What do you in eat in a typical week? List as many items that you recall:

12.) What did you typically eat before you came to college? List as many items that you recall:

13.) What did your parents/guardians typically serve at meal times?

14.) What are your portion sizes now?

__ Large
__ Medium
__ Small

15.) How do your portion sizes now compare to what they were before.

__ Larger
__ A little more
__ The same
__ A little less
__ Less

16.) Would you consider the diet you ate at home to be traditionally Asian or not? Explain:

17.) If you answered Southeast or East Asian on Question 2, what foods do you consider to be part of the traditional Asian meal composition?

18.) What foods do you consider to be part of the Westernized meal composition?

19.) Do you currently eat a “traditional” diet?

__ Yes __ No

20.) If you answered yes to question 19, what traditional items do you eat in in a given week?

21.) If you answered yes to question 19, how frequently do you consume traditional items?

__ Never
__ Once a day
__ 2-3 times per week
__ 4-5 time per week
__ Six or more times per week

APPENDIX B: INTERVIEW QUESTIONS

Interview Questions for M.A. Research

1. How old are you?

2.) Which ethnicity do you identify as?

3.) What is your country of origin?

4.) Are you an international student?

5.) How often do you dine on campus?

6.) What year of school are you currently in?

7.) Are you an international student living in the United States for the first six months to two years?

8.) Is food on campus healthy/nutritious?

9.) Is on campus dining convenient?

10.) Is food on campus a formal meal or snack?

11.) Where do you usually eat on campus?

12.) What do you in eat/drink in a typical week? List as many items that you recall. [Show participant images of various foods and drinks, they select which ones they eat in a typical week]

13.) What did you typically eat/drink before you came to college? [Show participant images of various foods and drinks, they select which ones ate before attending university]

14.) What did your parents/guardians typically serve at meal times? [Show participant images of various foods and drinks, they select which ones eaten at home]

15.) What are your portion sizes now?

16.) How do your portion sizes now compare to what they were before?

17.) Would you consider the diet you ate at home to be traditionally Asian or not? Explain:

18.) What foods would you consider to be traditional Asian meal composition?

19.) Do you currently eat a traditional diet?

20.) How frequently do you consume traditional foods?

21.) Which foods do you consider to be Westernized food items?

22.) How do you think your diet has changed from when you were living at home to what you eat now?

23.) How do you usually eat your food (i.e., what utensils do you use)?

24.) Do you usually eat at specific times or no?

25.) Are you ever confused as to what you are eating?

26.) Do you have a meal plan?

APPENDIX C: RECRUITMENT INVITATION

An Anthropological Study of Eating Perspectives, Meal Composition, and Food Choices among Diverse Student Populations

Recruitment Invitation

Principal Investigator: Chelsea Daws

Investigational Site: The University of Central Florida

Criteria of Eligibility: Researchers at the University of Central Florida (UCF) study many topics. To do this we need the help of people who agree to take part in a research study. You are being invited to take part in a research study. Whether you take part is up to you. The study will include about 25 people at UCF. You have been asked to take part in this research study because you are 18-30 years old and either a first year international college student living in the United States for the first two years or a domestic college student at UCF. The person doing this research is Chelsea Daws of the UCF Department of Anthropology. Because the researcher is a master's student she is being guided by Dr. Ty Matejowsky, a UCF faculty advisor in the Department of Anthropology.

The Principal Investigator: The person doing this research is Chelsea Daws of the UCF Department of Anthropology. Because the researcher is a master's student she is being guided by Dr. Ty Matejowsky, a UCF faculty advisor in the Department of Anthropology.

Purpose of the research study: The purpose of this study is to investigate how meal choices for Asian international college students change over time from what they ate growing up. Currently, college students are met with a wide range of on campus dining options that are no longer limited to the traditional breakfast, lunch, and dinner. Student unions across the country now feature well-known fast food establishments alongside more conventional dining hall facilities. This wide availability of food options convenience but also presents new challenges to students who are living away from home for the first time.

Studies show that many college freshmen and international students are particularly at risk for developing health problems associated with unhealthy eating behaviors. Furthermore, there are many differences between American meals and traditional Asian diets. It is arguable that many of the foods offered on campuses like UCF's are unfamiliar to international students, and that it is sometimes difficult for these students to distinguish between healthy and unhealthy foods. I hypothesize that if Asian international students report eating meals composed in ways similar to what they commonly ate at home, they will continue to eat healthy, modify their diets, and develop fewer dietary health problems compared to American college students. I will test the hypothesis through the use of surveys, participant observation and interviews.

What you will be asked to do in the study: Recruitment of participants is expected to be completed by the end of August 2016, and interviews are anticipated to begin in August 2016

and reach completion in December 2016. You will decide where interviews and surveys take place and whether or not you want to be recorded. You will interact only with the principal investigator. My hypothesis will be tested through using surveys and unrecorded/recorded interviews which will ask you what you ate before coming to university and what you eat now. The data will be analyzed in order to identify any patterns or themes. This analysis will include an examination of food choices in a campus environment. You will be required to sit for one interview session and answer questions about your dining preferences. We expect that you will be in this research study for no more than ten to 30 minutes of your time for each session for which you will be compensated $1.00 per session. You are responsible for showing up to interview sessions at the agreed upon time and place.

Study contact for questions about the study or to report any issues: If you have questions, concerns, or complaints, or think the research has hurt you, talk to Chelsea Daws, Graduate Student, Cultural Anthropology Program, College of Sciences, (561) 635-9437 or by email chelsead@knights.ucf.edu or Dr. Ty Matejowsky, Faculty Supervisor, Department of Anthropology at (407) 823-4611 or by email at Ty.Matejowsky@ucf.edu

APPENDIX D: INFORMED CONSENT

An Anthropological Study of Eating Perspectives, Meal Composition, and Food Choices among Diverse Student Populations

Informed Consent

Principal Investigator: Chelsea Daws
Faculty Advisor: Dr. Ty Matejowsky, PhD
Investigational Site: The University of Central Florida

Introduction: Researchers at the University of Central Florida (UCF) study many topics. To do this we need the help of people who agree to take part in a research study. You are being invited to take part in a research study. Whether you take part is up to you. The study will include about 25 people at UCF. You have been asked to take part in this research study because you are 18-30 years old and an international college student living in the United States for the first two years or a domestic college student at UCF. The person doing this research is Chelsea Daws of the UCF Department of Anthropology. Because the researcher is a master's student she is being guided by Dr. Ty Matejowsky, a UCF faculty advisor in the Department of Anthropology.

What you should know about a research study:
- Someone will explain this research study to you.
- A research study is something you volunteer for.
- Whether or not you take part is up to you.
- You should take part in this study only because you want to.
- You can choose not to take part in the research study.
- You can agree to take part now and later change your mind.
- Whatever you decide it will not be held against you.
- Feel free to ask all the questions you want before you decide.

Purpose of the research study: The purpose of this study is to investigate how meal choices for first year Asian international college students change over time from what they ate growing up. Currently, college students have a wide range of on campus dining options that are no longer limited to the traditional breakfast, lunch, and dinner. This wide availability in eating options is

convenient but also presents new challenges to students who are living away from home for the first time.

What you will be asked to do in the study: You may be asked about what you ate before coming to university and what you eat now. You may also be given photographs of different foods, and asked to construct your current and/or former meal compositions. You are responsible for showing up to interview sessions at the agreed upon time and place. You do not have to answer every question or complete every task. You will not lose any benefits if you skip questions or tasks.

Location: The interviews and photo-voice survey can be conducted in your place of choice.

Time required: We expect that you will be in this research study for no more than ten to 30 minutes of your time for each session. Recorded interviews will be a maximum of thirty minutes while unrecorded interviews are expected to last between ten to fifteen minutes.

Audio or video taping: You will be audio taped during this study. If you do not want to be audio taped, you will be able to be in the study. Discuss this with the researcher or a research team member. If you are audio taped, the tape will be kept in a locked, safe place. Data will be kept indefinitely for research purposes on a password protected computer file.

Risks: There are no reasonably foreseeable risks or discomforts involved in taking part in this study.

Benefits: We cannot promise any benefits to you or others from your taking part in this research. However, possible benefits include a greater knowledge regarding your individual nutrition and food choices.

Compensation or payment: You can expect to receive cash payment at a rate of $1.00 for the interviews.

Confidentiality: We will limit your personal data collected in this study to people who have a need to review this information. We cannot promise complete secrecy. Organizations that may inspect and copy your information include the IRB and other representatives of UCF.

Study contact for questions about the study or to report a problem: If you have questions, concerns, or complaints, or think the research has hurt you, talk to Chelsea Daws, Graduate Student, Cultural Anthropology Program, College of Sciences, (561) 635-9437 or Dr. Ty Matejowsky, Faculty Supervisor, Department of Anthropology at (407) 823-4611 or by email at Ty.Matejowsky@ucf.edu.

IRB contact about your rights in the study or to report a complaint: Research at the University of Central Florida involving human participants is carried out under the oversight of the Institutional Review Board (UCF IRB). This research has been reviewed and approved by the

IRB. For information about the rights of people who take part in research, please contact: Institutional Review Board, University of Central Florida, Office of Research & Commercialization, 12201 Research Parkway, Suite 501, Orlando, FL 32826-3246 or by telephone at (407) 823-2901.

APPENDIX E: IRB APPROVAL LETTER

University of Central Florida Institutional Review Board Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Chelsea Nicole Daws**

Date: **November 09, 2016**

Dear Researcher:

On 11/09/2016 the IRB approved the following modifications to human participant research until 08/30/2017 inclusive:

Type of Review: IRB Addendum and Modification Request Form
Expedited Review
Modification Type: Change in eligibility requirements, change to protocol and consent and updated survey
Project Title: •An Anthropological Study of Eating Perspectives, Meal Composition, and Food Choices among Diverse Student Populations
Investigator: Chelsea Nicole Daws
IRB Number: SBE-16-12422
Funding Agency:
Grant Title:
Research ID: N/A

The scientific merit of the research was considered during the IRB review. The Continuing Review Application must be submitted 30days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form **cannot** be used to extend the approval period of a study. All forms may be completed and submitted online at https://iris.research.ucf.edu .

If continuing review approval is not granted before the expiration date of 08/30/2017, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

Use of the approved, stamped consent document(s) is required. The new form supersedes all previous versions, which are now invalid for further use. Only approved investigators (or other approved key study personnel) may solicit consent for research participation. Participants or their representatives must receive a copy of the consent form(s).

All data, including signed consent forms if applicable, must be retained and secured per protocol for a minimum of five years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained and secured per protocol. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Kamille Chap

Signature applied by Kamille Chaparro on 11/09/2016 10:00:01 AM EST

IRB Coordinator

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