

THE IMPACT OF CULTURE ON NUTRITION AMONG AFRICAN AMERICAN
STUDENTS AT EAST CAROLINA UNIVERSITY

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ABSTRACT

The purpose of this study is to investigate the interrelationship between food culture in African American communities and its subsequent impact on nutrition. The study explores the cultural model of nutrition among African American students at East Carolina University. The research project involved using free listing techniques to collect information about foods that African American students connect to African American food culture. This technique uses a participant's own knowledge to elicit cultural models for food and nutrition. This allowed the investigator to collect information about a participant's cultural knowledge of the cultural models of food and nutrition among African American ECU students. While history and ethnicity are related to health inequalities, research has often neglected to mention the significance that these cultural influences have on individual behaviors. Discussing health disparities in a way that accounts for cultural influences is important in understanding health behaviors.

INTRODUCTION

The purpose of this study is to investigate the effect that culture has on nutrition in African American communities. The study explores what foods African Americans associate with African American food culture, as well as how they interpret African American food culture. All data were collected via surveys shared with college students at East Carolina University. East Carolina University is a public college located in eastern North Carolina in the town of Greenville. Informants were individuals who identified as black or African American, at least age 18, and were students at East Carolina.

The study consisted of two separate phases. The data collection technique is known as free listing, in which informants were asked to list the foods they associated with African American food culture. This technique allowed informants to develop a cultural model around the informants' own ideas. The fifteen most frequently mentioned foods were used and analyzed for consensus.

Analysis of the data was completed using Microsoft Excel. Demographic information was also collected and used to analyze similarities among the informants as far as socioeconomic status and overall experience in the Greenville area. The data analysis provided insight into the cultural consensus among African American students, which was used to better understand the relationship between culture and nutrition.

LITERATURE REVIEW

Historical Perspective

African American cuisine, coined as the term "soul food" is used to describe the food culture of black Americans. Soul food has its roots in Africa, the time prior to the Middle Passage, and the Transatlantic Slave Trade. At the beginning of the sixteenth century, West and West Central Africans were primarily subsistence farmers growing crops and preparing food in ways that had evolved for 5,000 years (Covey, Finsch, and ProQuest, 2009). The West African savanna had developed into an important cradle of agriculture. Diet of West Africans relied heavily on both indigenous grains and vegetables that had been cultivated for many thousands of years and included an increasing number of nonnative crops after the sixteenth century (Covey, et al., 2009).

As the slave trade developed, European slavers actively sought to enslave agriculturalists from the Senegambian region due to their expertise in agriculture, knowledge of the native produce, and proficiencies in metallurgy, pottery, leatherwork, and weaving. Rice and indigo were Senegambian specialties and eventually became important in South Carolina and Louisiana. Additionally, these savanna farmers raised maize, peanuts, and tobacco as well as native produce including melons, gourds, beans, cotton, sorghum, millet, okra, sesame seed, tamarind, and kola. African farmers from the forested areas raised yams, bananas, maize manioc (cassava), and sweet potatoes (Covey, et al., 2009).

Several of the foods commonly used in American cuisines are indigenous to Africa. As early as 4000 BC, grains, legumes, yams, watermelons, pumpkins, okras, cucumbers, onions, lemons, oranges, and leafy greens were noted in archeological findings (Covey, et al., 2009).

Cucumber, onion, garlic, sesame seeds, black-eyed peas, collards, and other leafy greens, are also believed to be African in origin.

Culinary historians deduced that in the early 1300s, Europeans exploring Africa introduced some of their own cuisines to the locals. These foods, including cabbage and turnip greens, would soon play an integral role in the history of soul food. When slave trading began in the 1400s, enslaved Africans were forced to change their diet. The Middle Passage was a trying period for newly enslaved Africans. They were forced to replace their plant-based diet with one consisting of small portions of rice, beans, and spoiled beef and fish. The middle passage also represented a time where indigenous crops of Africa began to show up in the Americas. Other native and nonnative foods of West Africa were important companions for the enslaved as they endured the Middle Passage crossing to the Americas, not only providing nourishment on the way over but also giving a toehold to the agriculture that later supported the development of southern cooking and other African derived cuisines (Covey, et al, 2009).

The key to African cooking was simplicity. Foods were sometimes fried in oils or vegetable butter, toasted in fires, and baked in ashes. Smoke was used as a flavor while nuts and seeds were used as a thickener. Okra and peppers were used as seasoning and salt as a preservative.

The diet of the African slave was relatively healthier than that of slave owners. Slave owners ate foods high in fat, seldom ate vegetables, and regularly indulged in desserts and alcohol.

However, slaves needed to be healthy to complete fieldwork, so their diet remained plant-based. As the assimilation of Africans into American society began, so did the assimilation of their food culture. Slaves were forced to eat foods that were convenient, which often included the remnants of their owners' meals. However, they did eat a small selection of turnip green tops, beets, and

dandelions and eventually, they learned how to cook other greens including mustard, collards, and kale.

Cornmeal was rationed out from the smokehouse as well as meat and molasses. By combining these ingredients with seasonings like onion, garlic, and thyme, they were able to create varying and flavorful dishes. The slaves were able to take unused portions of the pig and create unique dishes. Pig's feet, pig ears, chitterlings—pig intestines, tripe, and crackling were some of the main dishes and were often paired with portions of greens, and rice while molasses and cornmeal would be mixed together and served as a dessert.

When slaves began being allowed in the plantation as cooks, their diet began to change. Soul food was able to take on a new meaning when these new ingredients were placed at their disposal; new ingredients and an expansive African palate meant the cooks could make exquisite foods for their masters. Fried chicken, sweet potatoes, and boiled white potatoes began to make their way to the dining table and puddings and pies were made from local fruits and nuts as dessert.

After long hours working in the fields, the evening meal was a time for families to get together. It was during the meal that the oral history was re-told, forbidden religious ceremonies held and family and friends visited. Soon this became known as "good times" food. There was a point when several slaves tried to escape, and many were taken in by Native Americans. Several of them, however, were recaptured, however, they brought back with them new ingredients, such as ground green sassafras, which would be used as a spice.

Each state had its own cultural influences which eventually were reflected in the African dishes. Rich and saucy dishes with a French accent came from Louisiana, while the Carolina's

Spanish culture introduced dishes like jambalaya and a sausage. Bouillabaisse and cassoulet, traditionally French cuisines, were changed into a gumbo by adding shellfish from the bayou, okra, and ground saffron.

Unlike dishes from other countries with names that usually told what the ingredients were, black cuisine has names that told you more about the history of how it came about and less of what was in it. No matter the stories, black cuisine was always good for using everything available; there was never anything left to waste. Leftover fish became croquettes, stale bread became bread pudding, and each part of the pig had its own special dish. Even the liquid from the boiled vegetables was turned into "pot likker" which was used as a gravy or drink. In the mid-1960s, when the Civil Rights Movement was just beginning, terms like "soul man", "soulful", and "soul" were used in connection with blacks themselves. It caught on with mainstream America and eventually black cuisine became known as "soul food".

Social Determinants of Health

The World Health Organization defines Social Determinants of Health (SDH) as “the conditions in which people are born, grow, live, work and age” and “the fundamental drivers of these conditions.” Social determinants often describe factors that are health-related, such as, neighborhood safety, recreational areas, and accessibility of healthy foods, all of which can influence health behaviors. Research evidence has revealed that there are several factors, other than medical care, shape health indicators, settings, and populations. This evidence does not deny that medical care influences health, however, it does indicate that medical care is not the only influence on health. It suggests that the effects of medical care may be more limited than commonly thought and that medical care is relatively incapable of determining who will become sick or injured. The relationship between social factors and health is very complex, however, it is known that SDH accounts for 60 percent of a person's overall life expectancy (Nowroozi, L., 2018). Access to nutritious meals on a consistent basis can help treat chronic diseases such as diabetes and heart disease that disproportionately affect underserved communities (Nowroozi, L., 2018).

Nutrition, access to nutritious food options, and an understanding of nutrition are another key SDH. In African American communities, it is imperative that cultural myths and rationale are explored when trying to holistically understand food in this culture. For example, the Journal of General Internal Medicine released an article titled 'Clinical Implications of Body Image among Rural African American Women' and in the article, Baturka, Hornsby, and Schorling were able to develop the following conclusions: African American women view weight as more attractive and healthier, God is responsible for one's size, and one must prepare extra amounts of food so that there will be leftover food for days to come (2004). These tolerances put African

American women at a more increased risk of developing obesity than white women. In this study, it was also determined that women in the rural South experienced the highest rates of obesity in the United States (Baturka et al., 2004).

The National Research Council and Institute of Medicine released information that stated the U.S. health disadvantage in morbidity and mortality applies across most health indicators and all age groups except those older than 75 years of age, affluent and poor Americans, and to non-Latino white people when examined separately. Another example observed that the expansion of Medicaid maternity care in 1990 increased receipt of prenatal care by African American women, but also increased racial disparities in the key birth outcomes of low birth weight and premature delivery. Although important for maternal health, traditional clinical prenatal care generally has not been shown to improve outcomes in newborns.

Researchers concluded that half of all deaths in the U.S. involve behavioral cause and more evidence has shown that health-related behaviors are strongly shaped by social factors, including income, education, and employment (McGinnis and Foege, 2009). Avoidable factors associated with lower educational status account for almost half of all deaths among adults in the United States. In the year 2000, deaths related to low education, racial segregation, and low social support were comparable with the number of deaths related to heart attacks, cerebrovascular disease, and lung cancer, respectively.

The health impact of social factors is also supported by the connection between a wide range of health indicators and one's socioeconomic status, income, education, and rank in a profession. With this, there is a direct correlation of health improving as socioeconomic status rises. These socioeconomic correlations in health have been observed macroscopically as well as microscopically within different racial/ethnic groups and educational attainment levels. For

example, racial discrimination could harm the health of individuals of all socioeconomic levels by acting as a pervasive stressor in social interactions, even in the absence of anyone's conscious intent to discriminate. Furthermore, the black-white disparity in birth outcomes is the largest among highly educated women. Living in a society with a strong legacy of racial discrimination could damage health through psychobiologic pathways, even without overtly discriminatory incidents.

Cultural Domain Analysis

"The most significant accomplishment of anthropology in the first half of the twentieth century has been the extension and clarification of the concept of culture" (Kroeber, 1952). In 1986, A. K. Romney, S. C. Weller, and W. H. Batchelder presented a formal mathematical model that could analyze the responses of informants to systematic interview questions. In this model, it can be assumed that the ethnographer does not know much about the informant's knowledge. This model is also capable of estimating how culturally competent an informant is by comparing the informant's answers to the answers of other informants. This model can evaluate true-false, multiple-choice, and fill-in-the-blank question formats.

The cultural consensus theory was founded on the observation that anthropologists in new cultures that ask questions are incapable of knowing the correct answer to the question nor the competency of the informant. The theorist wanted to establish a way to universally denote how accurate an informant's perspective as compared to others in the same culture. After establishing the informants' knowledge, ethnographers are able to shift the weight of accuracy to the more culturally competent participants. The cultural consensus model provided a way to use accumulated knowledge of psychometric test theory despite not knowing correct answers prior to completion.

The central idea of the theory is to use pattern agreement, or consensus, in informant answers to infer about shared knowledge, the constituents of culture. With this idea, the assumption was that correspondence in answers among informants was a function of the extent of truth associated with the knowledge. From this, researchers were able to formulate three assumptions, which are derivations of the formal model: common truth, local independence, and homogeneity of items.

A novel application by Weller et al. (1986) found that consensus and competence about beliefs regarding discipline techniques predicted familial use of corporal punishment. In this study, 176 high school students were measured via a 135 true-false questionnaire about disciplining in the household. From this, 48 students that identified the use of physical punishment in the home were less competent in the subject matter than the 128 students that did not identify physical punishment in the home. The scores suggest that there is cultural knowledge about what constitutes appropriate discipline.

The cultural consensus formal model was also used to study hypertension in Ojibway Indians in Canada. This was the first application of this model to study knowledge of a single disease. Additionally, Boster (1985,1986) used the cultural consensus model to study manioc naming among Aguaruna by which he delegated two separate tasks of varying difficulty to groups of informants. He was able to deduce that there was a general cultural sharing of knowledge among informants. But in order for one to expand knowledge on the subject, one needed to have a sort of kinship to someone with extensive knowledge.

The cultural consensus model can evaluate a variety of cultural domains from health and nutrition to psychological perspectives. It can evaluate the knowledge and competency of informants via mathematical models and comparative analysis. It is an important theoretical concept for the anthropological study of culture.

Social Stress and African American Health Behaviors

A cultural domain relevant to African American lifestyle and nutrition in the south is social stress. Social stress is defined as stress that is reflective of one's social interactions and sociocultural environment. It conceptually emphasizes an internal response resulting either from

the presence of socio-environmental requirements that affect adaptive capabilities or from the absence of the tools to obtain societally respected or needed tools (Aneshensel, 1992). Stressors refer to external circumstances whereas stress is an internal response.

As humans, we are chronically exposed to mental and psychosocial stressors. Prolonged exposure to stress can decrease efficiency in performance while increasing poor habits such as chronic fatigue, disinterest, dejection, memory disturbances, sleep problems, numbness and even muscle pains (Danielsson, M., Heimerson, I., Lundberg, U., Perski, A., Stefansson, C., Åkerstedt, T., 2012). These symptoms may lead to depression, post-traumatic stress disorder (PTSD) chronic fatigue syndrome, and ultimately chronic pain conditions, such as cardiovascular disease and diabetes (Danielson, et al., 2012).

As previously mentioned, culture and stress are interrelated as perceptions of stressors vary between cultures. Cultural consonance is the degree to which an individual's behaviors reflect the cultural model for the society they live in. Failure to exhibit cultural consonance leads to the onset of stress (Dressler, et al., 2007). Not fitting this model leads to an increase in stress which subsequently leads to poorer health outcomes. When a person is incapable of exhibiting cultural and social norms, social stress affects performance.

Family dynamics also impact social stress in African American families and communities. The social role of men in the African American family is to be the financial provider, oftentimes for both immediate and extended family members. The burden of being a financial provider coupled with the racial systems in American societies that prevents one from moving up in class creates social stress for African American men. To cope, several of these men find themselves working blue-collar jobs to bring in an income, while others get involved in illegal activities. The latter is then reflected in the disproportionate incarceration rates associated

with African Americans. African Americans are incarcerated in state prisons across the country at more than five times the rate of whites(Walker, Spohn, & DeLone, 2012). As a result, food insecurity is often seen in correlation with high crime rates.

Food Insecurity

Another cultural domain for African Americans is food insecurity. North Carolina has the tenth highest rates of food insecurity in the United States, with 1 in 5 children suffering from food insecurity and hunger. According to the USDA, food insecurity is defined as an economic and social condition of limited or uncertain access to adequate food in a household (Odoms-Young, 2018). Food insecurity is often a theme present in entire communities. In rural parts of North Carolina, such as Eastern NC, food deserts are more and more prominent. A food desert describes a geographic region in which there is no access to healthy and affordable food (Dutko, Ver Ploeg, & Farrigan, 2012). For African American communities, a lack of access to nutritional options and the presence of food deserts are common. As mentioned previously, during slavery, African Americans were forced to feed on scraps which included the less favorable portions of non-nutritional foods. First as a point of survival, but eventually, as a learned cultural model, the effects of this food dynamic are still present in the African American community.

Ethnographic Description of East Carolina University

Eastern North Carolina is known geographically as the state's Coastal Plain. According to the US Marshal, the Eastern District comprises the counties of Beaufort, Bertie, Bladen, Brunswick, Camden, Carteret, Chowan, Columbus, Craven, Cumberland, Currituck, Dare, Duplin, Edgecombe, Franklin, Gates, Granville, Greene, Halifax, Harnett, Hertford, Hyde, Johnston, Jones, Lenoir, Martin, Nash, New Hanover, Northampton, Onslow, Pamlico, Pasquotank, Pender, Perquimans, Pitt, Robeson, Sampson, Tyrrell, Vance, Wake, Warren, Washington, Wayne, and Wilson and that portion of Durham County encompassing the Federal Correctional Institution, Butner, North Carolina.

Pitt Count ranks 38 out of 100 for health outcomes and 25 out of 100 among all counties in North Carolina (County Health Rankings and Roadmaps, 2019). Thirty-six percent of the adult population reports being obese, compared to 26 percent nationally. The food index measures factors that contribute to a healthy food environment with 0 being the worst and 10 being the best. The food environment index was ranked a 6.7 on a 10-point scale, compared to the national average of 8.6. Income inequality was a 5.7 and comparatively 2-points higher than the national average of 3.7 (County Health Rankings and Roadmaps, 2019).

East Carolina University is in Pitt County, Greenville, NC. Greenville is surrounded by the counties Beaufort, Craven, Edgecombe, Greene, Lenoir, Martin, and Wilson. These counties are ranked 78, 49, 97, 63, 84, 89, and 86 respectively, in health outcomes. As of Fall 2019, East Carolina University has a total of 28,651 enrolled students with 18,933 students identifying as white and 4,561 students identifying as black or African American (Facts.ecu.edu, 2019). Students represent all 100 counties in NC, as well as, 47 states, the District of Columbia, and 73 countries. 90 percent of students were from in-state and 10 percent of students were from out of

state. 4,366 students were the first time first year students and 75 percent of those students received financial aid (facts.ecu.edu, 2019).

METHODS

This research study was conducted in a single phase by using an anthropological format known as free listing to collect data from thirty-nine informants. Due to the survey being generated as an online format, questions were put into place to ensure that informants fit ethnicity, age, and educational background demographics needed for the study. Only African American students that are not distance education students and were older than 18 could complete the survey. To gain an understanding of the views on culture and nutrition, informant interviews were necessary. The data were analyzed for an understanding of cultural consensus amongst the informants on the impact of culture on nutrition in African American students.

The informants were chosen at random for the research study. Informants were African American students eighteen years of age and older that resided in Greenville during the academic year. They were recruited via email, social media, and the snowball sampling method. Snowball sampling methods ask participants to refer other participants that fit the demographic criteria to participate in the study. With this method, the principal investigator was able to interview additional informants based on the previous informant's referrals.

Free listing was conducted so that the investigator could determine which foods informants associated with African American culture. Free listing is a technique used to identify terms which informants associate with a cultural domain; the domain in this study was African American food culture. Surveys were dispersed through email, social media, and flyers. Informant surveys were submitted via a google form which allowed only one entry per associated google address.

Free listing provides a broad list of terms that can then be studied to determine shared meaning among informants in relation to the cultural domain being analyzed. Participants were asked to list everything that came to mind when they heard the word “African American food culture”. Common sample terms that came up from this activity included “fried chicken,” “macaroni and cheese,” and “collard greens.” This survey generated many varying responses some of which were synonyms that had to be combined together and narrowed down.

In the analysis of the free listing data, the responses were tallied. The top twenty percent of the foods mentioned by the informants were chosen as the basis of the research study. The top twenty percent consisted of fifteen terms. Informants were also asked to list and describe stores which they predominantly bought groceries and restaurants in which they could buy foods that they associate with African American food culture. This was to given additional cultural context and to create a relationship between the availability of foods and the cultural model of African American food.

Cultural Domain Analysis

Cultural models represent social phenomena within a society that are shared, or consensual, by individuals within the culture (Dressler, 2001). The chosen cultural domain of this study is African American foods. This study of African American food culture has proven how culture is reflected in the ideas of food and nutrition as well as, whether there is a shared agreement or cultural consensus among informants.

African American food was chosen as the domain due to other research which demonstrated the relationship between nutrition and health in the African American community. Allowing informants to identify foods that they associate with African American culture allowed

researchers to develop a cultural model around this identity. Cultural domain analysis identifies the shared cultural mode of food among African Americans and analyzes why food is important to African American culture.

Sample

Demographic information was gathered from each informant including race and ethnicity, residence, education level, and indicators of socioeconomic status. Due to the population consisting of college students, it can be assumed that the majority of informants are not independent and therefore would not have a personal income that could be used to determine socioeconomic status. To combat this, the investigator instead asks questions like “do you have a car” and “do you or have you recently (within the last six months) been employed?”

RESULTS

The data gathered was compiled and analyzed via Microsoft Excel to identify the cultural consensus of foods that are associated with African American food culture. The fifteen most frequently mentioned terms from the data included: baked macaroni and cheese, fried chicken, collard greens, candied yams, cornbread, chitterlings/ hog maws, pig feet/ ham hocks, sweet potato pie/ casserole, fried fish, turnip greens, pound cake, fried shrimp, fatback, banana pudding, and potato salad.

The most frequent reasons for associating these foods with African American Food culture were: “this is what I grew up eating” or “what I enjoy eating now;” “this is what I see in my culture through media” and “this is what they sell in my community;” “this is what my family cooks,” “what you typically see at family gatherings,” or “what my friends eat.”

There were also outlier responses such as “I am Nigerian American, so I eat food from my [Nigerian] culture” or simply “I do not know what constitutes African American food.”

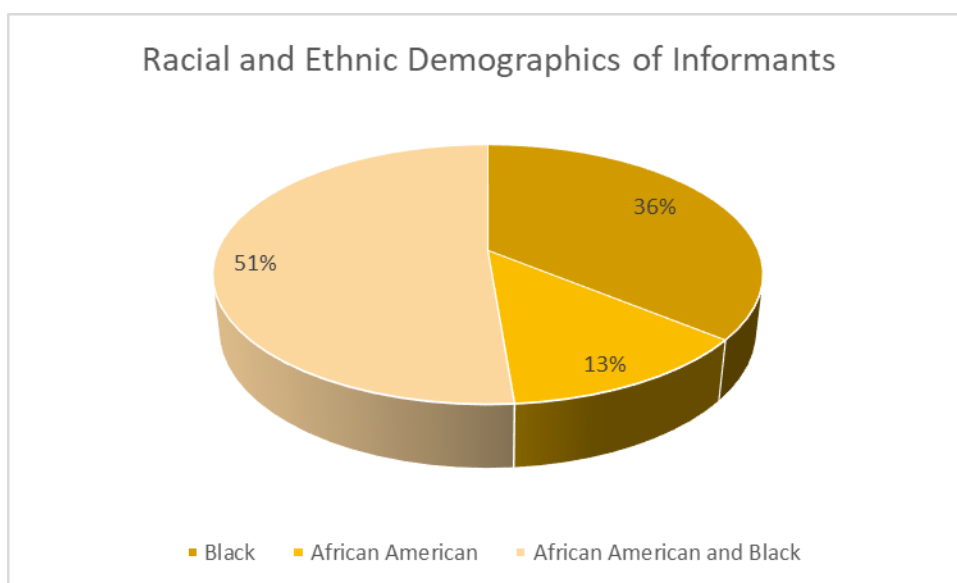


Figure 1. Race and Demographics

Figure 1 is a visual representation of race and ethnicity demographics. Informants were required to identify as at least black or African American, however, more than 50 percent of informants identified as both.

Table 1. The scale of Associated Foods with African American food culture

Rank	Food Item	Frequency	Percentage
1	baked macaroni and cheese	27	69.2
2	fried chicken	26	66.7
3	collard greens	23	59.0
4	candied yams	13	33.3
5	cornbread	12	30.8
6	chitterlings/hogmaws	12	30.8
7	pig feet/ ham hocks	9	23.1
8	sweet potato pie/ casserole	7	17.9
9	fried fish	7	17.9
10	turnip greens	4	10.3
11	pound cake	4	10.3
12	fried shrimp	4	10.3
13	fat back	4	10.3
14	banana pudding	3	7.7
15	potato salad	3	7.7

Table 1 displays the distribution of the top 20 percent of the mentioned food terms. There was a total of 75 unique food terms, with most of them being repeated by at least two informants. The most frequently mentioned food item was the baked macaroni and cheese (27, 69.2 percent), followed by fried chicken (26, 66.7 percent), and collard greens (23, 59.0 percent).

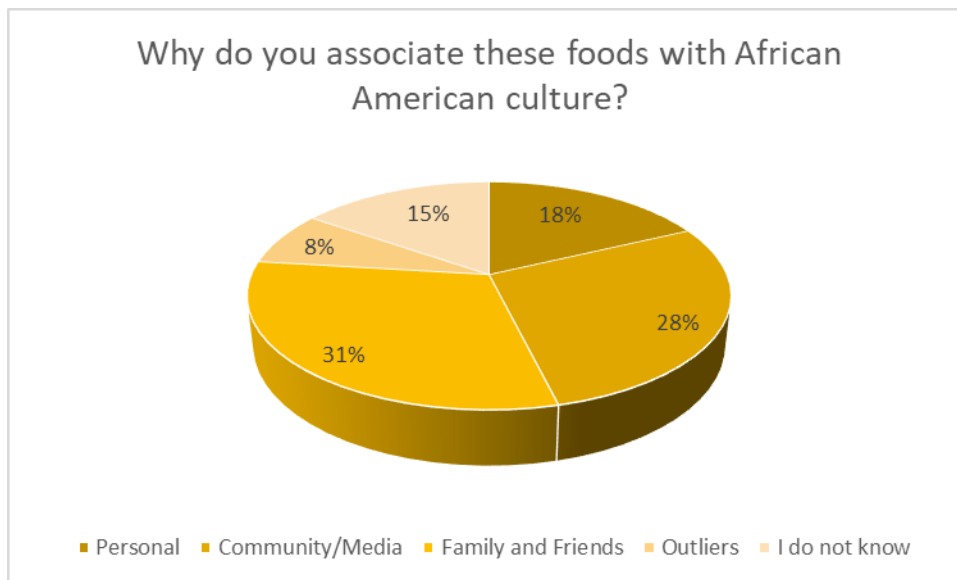


Figure 2. Reasons for Associating Foods

Figure 2 is a visual representation of the distribution of reasoning for associating specific foods with African American culture. The key for the graph is as follows:

Personal (18%) – Any explanation that mentioned “I” or implies a personal decision for eating these foods. This includes reasoning such as “This is what I grew up eating.”

Community/Media (28%) – Any explanation that implies an influence from culture, community, or media. This includes responses like “this is what I see in my culture through media” and “this is what they sell in my community”

Family and Friends (31%) – Any explanation that implies influence from family or friends. This includes “this is what my family cooks”, “this is what you typically see at family gatherings”, or “this is what my friends eat”.

Outliers (8%) – There were also outlier responses such as “I am Nigerian American, so I eat food from my [Nigerian] culture” or simply “We make food taste better.”

Lastly, there were informants that simply stated: "I do not know" which was about 15 percent of the total responses.

As seen in figure 2, the most common reason for associating specific food with African American food culture is because they have seen it consumed with their family and friends. Approximately 28 percent of people associate these specific foods with African American food culture because that is what is seen in the community and the media. All the data were compared, analyzed, and cross-referenced with the research literature.

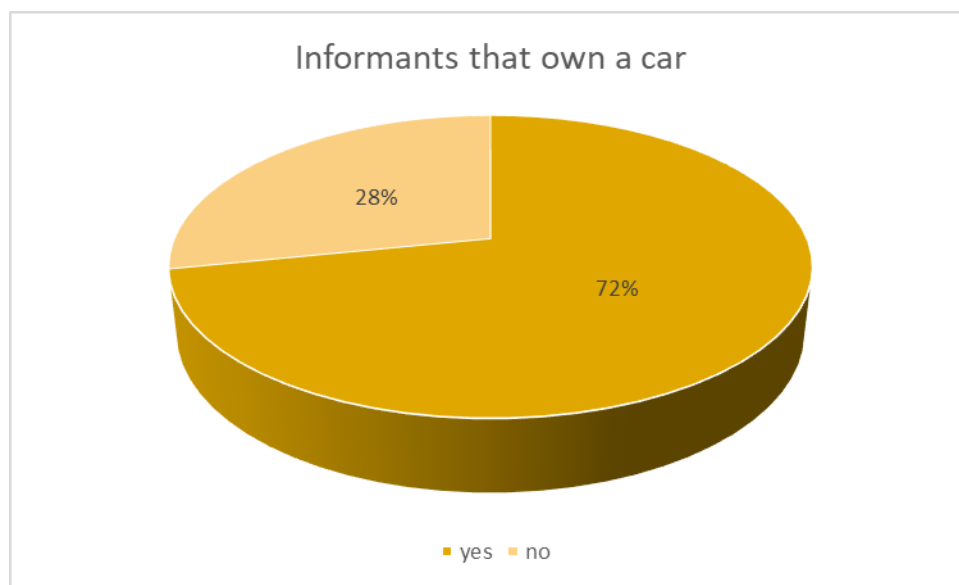


Figure 3. Determination of Socioeconomic status via car ownership

Figure 3 is a representation of the data regarding the socioeconomic status of informants. As demonstrated, 72 percent of informants owned a car. Ownership was defined as anyone with the primary use of a car, so to include individuals that did not purchase the vehicle or receive assistance from someone to pay for the vehicle.

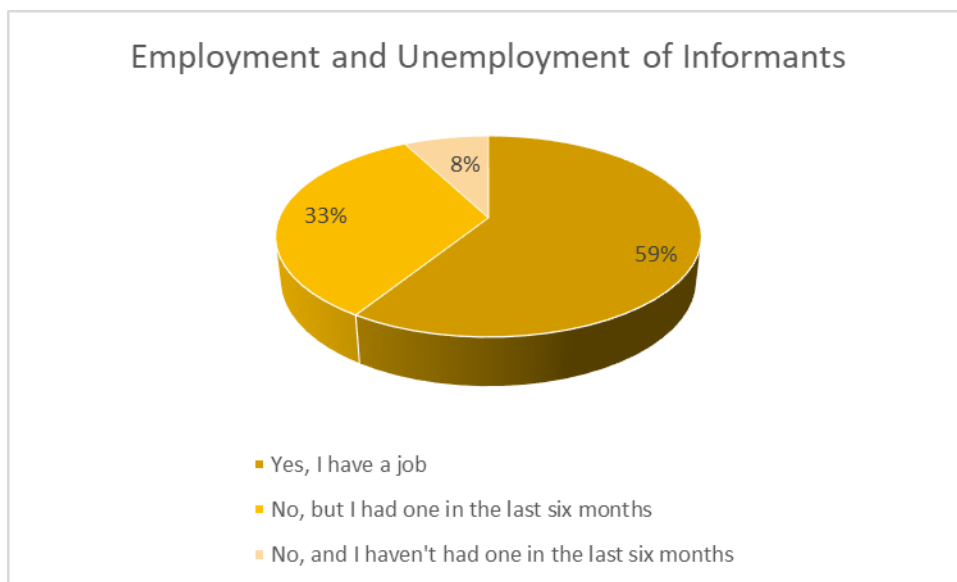


Figure 4. Employment and Unemployment Rates of Informants

Figure 4 is also used to determine socioeconomic status. Approximately 59 percent of informants were employed, and 33 percent of informants recently became unemployed.

Table 2. List of Associated Restaurants for African American Cuisine in Greenville NC

Restaurants	Frequency	Percent
GK Café	24	61.5
Lookatdatder	9	23.1
RJ's Famous Chicken, BBQ, & Ribs	32	82.1
42 Fry	8	20.5
A church or religious event	21	53.8
A private social gathering	19	48.7
A food chain restaurant	8	20.5
Hook n Reel	3	7.7
None	2	5.1
Texas roadhouse	1	2.6

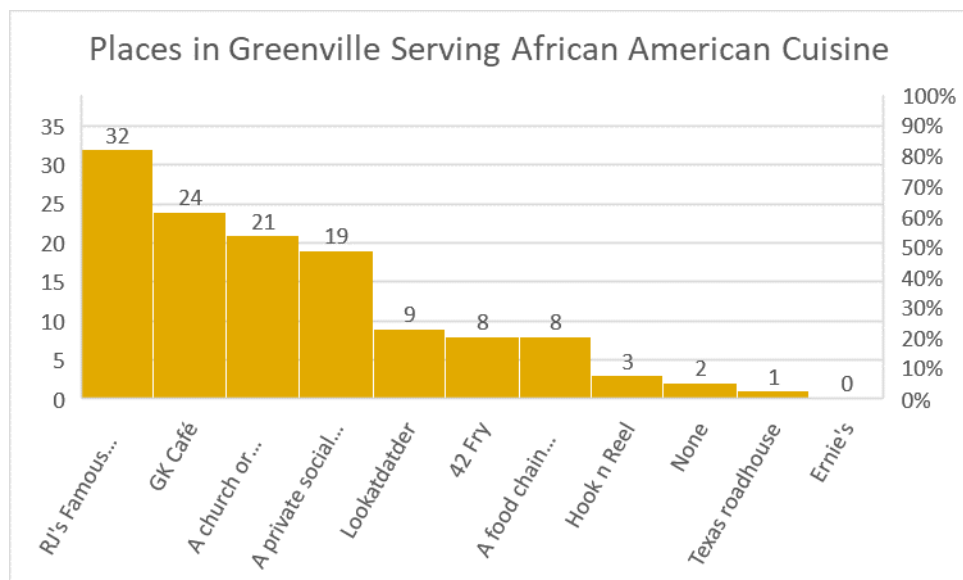


Figure 5. Restaurants that serve African American cuisine

Table 2 and Figure 5 are representations of the restaurants in Greenville that serve African American cuisine, according to informants. Informants were asked “where would they go to get a meal consisting of any of the food they listed” and the most frequented response was RJ’s Famous Chicken, BBQ, & Ribs with 82.1 percent of informants mentioning this restaurant. Informants also mentioned GK Café 61.5 percent of the time and 53.8 percent of informants mentioned a church or religious event as a common place to get African American cuisine. While African American religion was not a main focus in the study, it is to be noted that religion historically and continually influences decisions of African Americans, especially in southern states.

DISCUSSION

Univariate analysis was conducted to determine if there is shared knowledge or consensus among African American students about what constitutes African American food culture. There was consensus in the identification of foods (as displayed in table 1) and the reasons for associating these foods with African American culture (as displayed in Figure 2). The reasons for associating these specific foods with African American culture further support the idea that culture is a predictor of nutrition and the overall health status in Greenville, North Carolina.

The surveys were successfully completed by 39 students at East Carolina University. Race and ethnicity demographics were split uniformly, with about 51 percent of students identifying as both black and African American.

Research suggests that car ownership is indicative of wealth due to the costs associated with purchase and maintenance (Galobardes, Shaw, Lawlor, Lynch, & Davey Smith, 2006). Approximately 72 percent of students stated that they had their own car, 59 percent had a job, and 33 percent had a job recently within the last six months which are indicative of a balanced socioeconomic pool. *(It is also to be noted that these data were gathered during the novel COVID-19 pandemic, some information may be skewed because of that).*

The choice of food items demonstrated a shared consensus between informants. 27 (69.2 percent) of informants identified baked macaroni and cheese as a staple food in African American food culture. Baked macaroni and cheese has origins in France, after which Europeans introduced it to African Americans during slavery. The dish is widely popularized by African American communities today for its flavor and ability to feed large bodies of people. The other

14 terms were fried chicken, collard greens, candied yams, cornbread, chitterlings/hog maws, pig feet/ham hocks, sweet potato pie/casserole, fried fish, turnip greens, pound cake, fried shrimp, fatback, banana pudding, and potato salad. The shared consensus may be a result of these students living in the south, in Eastern North Carolina. It can be assumed that foods associated with African American food culture in other African American communities can vary greatly. It can also be assumed that individuals who identified unique foods such as chicken and dumplings, curry chicken, egusi soup, and gumbo also have a heritage, backgrounds, or connections to African Americans in varying communities.

Another explanation for consensus among informants with food items is the food index of Greenville. As previously mentioned, the food index, or the ability to note whether there are enough healthy food options in a county, was about 6.7 for Greenville. Informants were asked about places that they shop at as well as restaurants that they could go to get a meal consisting of African American cuisine. 32, or 82.1 percent, of informants responded with RJ's Famous Chicken, BBQ, & Rib, 24 (61.5 percent) responded with GK Café and Catering, and 21 (53.8 percent) responded with a church or religious event. These places are representative of African American culture because they not only serve culturally respected foods, but they also add the atmosphere of “good times”, which is an important part environmental factor of African American food culture as mentioned in the literature review.

The responses for choosing to associate specific foods with the African American culture can be organized into five categories. The first is for personal views and implications. Some informants stated that choosing to identify these foods as African American culture is because “I like them,” or “I liked them when I was growing up.” These responses were worded as “These are the signature dishes I grew up eating”, and “This is what I eat.”

Family and Friend influences suggest that they associated these foods with African American food culture because their family and friends like to eat it. This was most commonly phrased as “It’s just what most of my family members and fellow black friends eat”, “Typical Sunday Dinner/ Church Dinner that came to the top of my head” or “This is the exact thing that my grandma and aunt make and I simply love every bite.”

Community and media related responses suggest that the informant made their decision based on what they see portrayed as the African American community in media or associated with their history. While mentions of culture and media were common, the inclusion of history was a unique perspective with only two informants choosing to include that as reasoning. This response was often noted as "I never really see other cultures eat these foods as much as we do", “[these are the] most common things that African Americans love or the first things that come to mind” or “Many of these cuisines date back to a time where African Americans were only able to access scrap materials.”

The results gathered in this research study suggest that there is shared cultural consensus among African Americans about what foods constitute African American food culture and why these foods are included as African American food culture. Out of the 39 informants, most of them were able to agree upon what foods should be included in food culture and why they were included. Therefore, it can be assumed that African American students at East Carolina University agree on the conceptual framework of culture and its influence on nutrition in the African American community.

CONCLUSION

The purpose of this study is to investigate the interrelationship between food culture in African American communities and its subsequent impact on nutrition. The study explores the cultural model of food among African American students at East Carolina University. The research project involved using free listing techniques to collect information about foods that African American students associated with African American culture. This technique uses a participant's own knowledge to elicit cultural models for food and nutrition. This allowed the investigator to collect information about a participant's cultural knowledge of the cultural models of food and nutrition among African American ECU students. The results of this study supported the idea that there is a shared consensus regarding the nutritional model of African American food culture and the reasons why people associate these foods with African American food culture.

Implications of this research and future research directions are there by developing a conceptual framework for the consensus of food culture and nutrition, one could devise a survey technique that could be used to assess the relationship between culture and nutrition in varying African American populations. The survey technique could be developed based on the main food items and associated reasoning presented in this study. Because cultural influences are important for determining why one consumes certain foods, a survey technique that measures what people eat and why they eat it could help predetermine the at-risk populations. This model could then help physicians and health educators to not only identify the at-risk individuals but also to develop preventative measures to reduce their risk of experiencing greater health issues. Health professionals would be able to offer culturally personalized ways to manage nutrition and improve health. Theoretically, this project could be continued by adding more phases and using

other survey techniques such as pile sorting and dietary recalls to further evaluate individual indicators of nutrition. This project could also be translated to other African American populations and evaluated for cultural food models for a specific population.

Limitations of the research study include demographics and sampling strategies. Variation in socioeconomic status should be considered. All informants were college students; however, a vast majority of students were juniors and seniors. Informants were also required to be local students, not distance education students, to ensure that the questions alluding to food index would be applicable to all students. The sampling strategy used in this research study was snowball sampling and the type of data analysis was cultural domain analysis. There were only 39 informants which is a relatively small sample size so more may be needed to develop a consensus understanding of the entire cultural domain of food and nutrition in the African American population.

Despite such limitations, the data collected in this study aligned with previous research conducted regarding food and nutrition among African American populations and was the first to be conducted of a population at East Carolina University. Over the years, culture has been included more often in research as a factor in African American cultural models of nutrition and food. While there is more representation in this type of research, there is still a lack of understanding within the population and among health professionals. This research study has also demonstrated how cultural domain analysis can be used to make inferences about nutrition and food culture within a specific population.

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