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Alan Bienvenida Date

Identity and Healthy Eating: A Qualitative Study of Filipino Men's Eating Habits and Perceptions of Health and Chronic Disease in Atlanta, Georgia

By

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By

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An abstract of
A thesis submitted to the Faculty of the
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Abstract

Identity and Healthy Eating: A Qualitative Study of Filipino Men's Eating Habits and Perceptions of Health and Chronic Disease in Atlanta, Georgia

By

Alan Bienvenida

Background:

Filipino Americans have been shown to face higher rates of obesity, hypertension and Type II diabetes compared to other Asian American populations. Their dietary behavior have been cited as a main contributor to the increasing prevalence of chronic disease in the community. Recently, researchers have recognized the role of cultural and healthy-eater identity in dietary behavior change. This analysis utilizes qualitative methodology to describe how identity shapes the eating habits, perceptions of health, and chronic disease among Filipino Americans living in Atlanta, Georgia.

Methods:

We analyzed in-depth interview data from Filipino Americans living in Atlanta, Georgia. Thematic analysis was used to understand the experiences of seven Filipino American Adults concerning their cultural identity, eating habits, and perceptions of healthy eating and chronic disease. Participants were separated based on healthy-eater identity, based off their health perceptions and self-reported eating habits.

Results:

Numerous themes emerged in regard to the role identity played in shaping Filipino perceptions of healthy eating and chronic disease. According to participants, the traditional Filipino diet is high in fats, carbs, and salt and low in vegetable portions. Alternative recipes were offered as a method to retain cultural significance of the food while also prioritizing health. Those designated as healthy-eaters were more likely to practice healthy eating behaviors because of their more robust level of nutritional knowledge and ability to overcome certain barriers. Cultural identity seemed to dictate the type of food Filipino men would consume. Certain factors such as perceived risk and self-efficacy were expressed by participants as aspects which influence their individual motivation to practice healthy eating.

Discussion:

These findings corroborate current literature on the factors which influence the dietary behaviors of Filipino Americans. Healthy-eater and cultural identity work together to influence personal, behavioral, and environmental factors influencing dietary behavior change. The analysis provided public health researchers with foundational and culturally relevant information on how to potentially tailor a dietary intervention with this community. Overall, this study takes the first steps towards addressing the growing burden of chronic disease in Filipino Americans in this region of the United States.

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Chapter 1: Introduction

Defined as an illness that persist for a long period of time requiring continuous medical attention, chronic disease can severely limit an individual's capacity to live a healthy life (Centers for Disease Control, 2018). Nutrition-related chronic diseases such as obesity, diabetes, and cardiovascular disease stem from multiple causes including unhealthy diet patterns consisting of excess calories from sugar, starches, saturated and/or trans fats in combination with a low intake of vegetables and fruits and a lack of physical activity (WHO & FAO, 2003). Today in the United States, many individuals are exposed to energy dense diets (Cordain et al., 2005); however, certain populations disproportionately suffer from the negative health effects (WHO & FAO, 2003).

Filipino's are the 4th largest immigrant population in the United States totaling 1.9 million (United States Census Bureau, 2017). Numerous studies have shown that this population continues to face higher rates of cardiometabolic conditions compared to other populations. Filipinos are more likely to have hypertension [OR = 1.18, 95% CI = 1.02-1.44] compared to Whites (Ye, Rust, Baltrus, & Daniels, 2009). In men, the odds of T2D are 4 times higher in Filipinos [OR 4.0, $p<.01$] compared to Whites. Additionally, Filipinos are consistently more likely to be overweight or obese compared to other Asian groups (Araneta & Barren-Connor, 2005; Choi, Chow, Chung, & Wong, 2011; Lauderdale & Rathouz, 2000) and Whites (Lee, Brancati, & Yeh, 2011). The eating habits of Filipinos have been cited as a main contributor to the increasing prevalence of chronic disease in this community. However, the extent of this claim must be thoroughly examined.

Increasingly, researchers have recognized the role "Identity" plays in understanding health behavior (Strachan & Brawley, 2009). According to Stets & Burke, pioneers of the

Identity Theory, when people adopt an identity, their behavior will shift to validate it (Stets & Burke, 2006). The extent to which this is accomplished depends on the value they place on this identity (Stets & Burke, 2006). As immigrants in the United States, Filipino Americans must juggle both their Filipino and American identities (Schwartz, Montgomery, & Briones, 2006). These cultural domains have been shown to influence an individual's behavior such as what they choose to eat (Schwartz et al., 2006; Shaw, Huebner, Armin, Orzech, & Vivian, 2009). The dueling influence of both cultural identities define dietary patterns and play an important role in the promotion and maintenance of health throughout the life course (Schwartz et al., 2006). In relation to health, the development of a "healthy-eater" identity, or one who practices healthy eating behaviors, has been shown to promote healthy eating habits (Strachan & Brawley, 2009).

An individual's cultural identity can meaningfully impact the eating behaviors of Filipino Americans and this can subsequently contribute to the prevention or promotion of chronic disease (Devine, Sobal, Bisogni, & Connors, 2008; Schwartz et al., 2006). Behavioral studies on food choice in immigrant populations in the United States describes how acculturation, or the extent "which immigrants adopt the values, beliefs, and behaviors of the host country" (Schwartz et al., 2006), determines dietary habits and thus overall health of immigrants (Satia-Abouta, Patterson, Neuhouser, & Elder, 2002; Serafica, Lane, & Ceria-Ulep, 2013). Serving as a proxy for cultural identity, higher levels of acculturation have been shown to be associated with a higher risk of overweight and obesity among immigrant populations (Antecol & Bedard, 2006; Argeseanu Cunningham, Ruben, & Venkat Narayan, 2008; Sanou et al., 2014). For the Filipino American, the relationship is more inconclusive. Traditional Filipino foods are high in fats, carbohydrates, and salt while lacking in vegetable content (Abris et al., 2018; Dela Cruz & Galang, 2008; Food and Nutrition Research Institute of the Department of Science and

Technology, 2008; Serafica et al., 2013). Consumed more frequently in the Philippines, the Filipino diet's lack of dietary diversity has been cited as a main cause in the rise of chronic disease in this population (Choi et al., 2011; Cuasay, Lee, Orlander, Steffen-Batey, & Hanis, 2001; Dela Cruz & Galang, 2008; Finucane & McMullen, 2008; Serafica et al., 2013; Ursua et al., 2013; Ye et al., 2009). However, Asian American populations including Filipino Americans believe that their traditional food practices are healthier than the diets they are exposed to in the United States (Harrison et al., 2005; Satia-Abouta et al., 2002; Serafica et al., 2013) ; views that are not supported by the nutrient content of the foods. This study will provide more context on the role identity plays in shaping the views of diet, and health among of Filipino Americans.

Purpose Statement:

Utilizing qualitative methodology, this study will seek to identify how identity influences the eating habits, and the perceptions of health and chronic disease in the Filipino American community living in Atlanta, Georgia. To our knowledge, this is the first study reporting on these issues in the Filipino American community in this area of the United States. The majority of Filipino Americans can be found on the West Coast, Hawaii, Texas and in the Northeast (NY, NJ) (SanJuan, 2000; United States Census Bureau, 2017). As of 2015, approximately 21,000 Filipinos live in Georgia ranking them 17th among all states (United States Census Bureau, 2017). Although this number is relatively small, public health researchers must reach out to these communities as their health outcomes may be substantially different compared to other geographic regions of the United States. Therefore, the knowledge gained from this study will help guide future public health interventions in this important and understudied population. Utilizing individual in-depth interviews, qualitative data was collected over three months from Filipino men living in and around the Atlanta metro area. These data were used to identify

shared themes among the participants. This provided novel information about the Filipino health experience in Atlanta concerning identity, eating habits, and chronic disease, which could be used to inform the development of interventions or programs for chronic disease prevention in this community. Furthermore, this study will examine the data collected to identify shared themes and experiences between Filipino Americans living in Atlanta and those living in other regions of the country.

Specific Aim:

To describe how identity shapes the eating habits, perceptions of health, and chronic disease among Filipino Americans living in Atlanta, Georgia.

Significance Statement:

As the public health field continues to prioritize health equity, cultural competency, and inclusion, it is important that public health researchers continue to prioritize the health of Asian populations who have historically been aggregated into a homogeneous ethnic category. (Ghosh, 2003; Srinivasan & Guillermo, 2000). Concepts applied to Asian Americans such as the "model minority" have disregarded the cultural, demographic, and health differences between Asian ethnic populations and have created a false notion that all Asians are the same (Chen & Hawks, 1995; Patil, Hadley, & Nahayo, 2009). This has resulted in the marginalization of minority populations such as the Filipino American among the scientific community, to the point where their unique health needs are not prioritized in public health research (Chen & Hawks, 1995). Although public health research on Filipino Americans continues to grow, no current research has been done in Atlanta, Georgia on overall Filipino health. This is especially concerning considering the growing burden of chronic disease among this population. It is the hope that the

information gathered from this study will help inform future public health interventions in this area.

Chapter 2: Literature Review

Chronic Disease Burden in Filipinos

In the United States, 6 out of 10 adults have a chronic disease (Bloom & Black, 2016) As the leading cause of death and disability, these diseases continue to strain the national health care system (Bloom & Black, 2016). Treatment and management of illnesses such as diabetes, cardiovascular disease, cancer and others attribute to an estimated seventy-five percent of total national health care expenditure (Legislatures, 2012). Several factors such as poor nutrition, lack of physical activity, and genetics make individuals more susceptible to chronic diseases (Centers for Disease Control, 2018). Certain populations are more at risk for nutrition-related chronic disease due to disparities associated with socioeconomic class, education, and cultural and social factors (Legislatures, 2012). This is especially apparent within the Asian American community.

Contrary to the "model minority" stereotype depicting Asian Americans and Pacific Islanders (AAPI) as a homogeneous population, AAPIs are heterogenous with respect to demographic, cultural, and health risk factors (Chen & Hawks, 1995). The idea that the Asian population is collectively "healthier" than other demographic groups ignores the health disparities experienced by the number of differing ethnicities placed under this umbrella (Holland & Palaniappan, 2012). However, a recent push to disaggregate broad racial and ethnic categories during data collection, especially for Asian Americans, has provided evidence showcasing the variation in health outcomes of different Asian ethnic groups (Holland & Palaniappan, 2012). This especially holds true for Filipino Americans.

The burden of chronic disease among Filipino Americans in the United States warrants attention given their status as the fourth largest immigrant population in the country. (SanJuan, 2000) Generally, Filipinos are more likely to be overweight or obese compared to other adult

Asian populations (Barnes, Adams, & Powell-Griner, 2008; Klatsky & Armstrong, 1991; Rosas, Sanchez-Vaznaugh, & Sánchez, 2015). In previous studies, Filipinos, both men (Lee et al., 2011; Ursua et al., 2013) and women (Lauderdale & Rathouz, 2000), have been shown to have higher overall adjusted BMIs (Lauderdale & Rathouz, 2000; Lee et al., 2011; Oza-Frank & Cunningham, 2010; Ursua et al., 2013) and a higher prevalence of T2D compared to Whites, and all other Asian subgroups except for Asian Indians (Choi et al., 2011; Lee et al., 2011). A study conducted in California reported the age-adjusted prevalence of T2D to be approximately 8.05% for Filipinos compared to 7.07%, 7.03%, 6.30%, 5.94%, and 5.93% for Japanese, Vietnamese, Korean, White and Chinese populations, respectively (Choi et al., 2011). In the same study, the odds of developing type II diabetes, adjusted for BMI, were 1.66 times greater for Filipinos (95% CI [1.13-2.43], $P < 0.01$) compared to Whites (Choi et al., 2011). This finding has prompted researchers to hypothesize that Filipinos, in addition to South Asians and Chinese populations, are more susceptible to T2D at lower BMI levels than Whites (Araneta, Wingard, & Barrett-Connor, 2002; Choi, Liu, Palaniappan, Wang, & Wong, 2013; Rosas et al., 2015). In addition, Filipinas were more likely to have greater excess visceral adipose tissue (VAT) at similar BMI and waist circumference than White and Black women (Araneta & Barren-Connor, 2005). However, this did not explain their increased risk of T2D.

Hypertension rates, a key risk factor for cardiovascular disease (CVD) is also higher in Filipino Americans compared to other Asian ethnic populations (Dela Cruz & Galang, 2008; Klatsky & Armstrong, 1991; Stavig, Igra, & Leonard, 1984; Ursua et al., 2013). A study of Filipino Americans living in New Jersey found that obese Filipinos were three times more likely to have hypertension than normal weighted individuals (Ursua et al., 2013). Alarmingly, Filipinos are also more likely to have multiple chronic conditions compared to Chinese, Asian

Indian, Korean, Japanese, and Vietnamese populations (Bloom & Black, 2016). Additionally, individuals at risk of diabetes were 1.9 times more likely to have hypertension compared to those with no risk (Ursua et al., 2013). As a person's number of chronic conditions increases, their risk of death, hospitalization, and increased healthcare costs rise dramatically (Fisher & Ma, 2013).

Identity Theory

Increasingly, public health researchers have recognized the role 'the self' plays in understanding health behavior (Strachan & Brawley, 2009). The self is the "psychological apparatus that allows organisms to think consciously about themselves" (Leary & Tangney, 2012). According to Stets & Burke, pioneers of the Identity Theory, the self consists of identities and these identities are dynamic and autonomous control systems that encourage identity-matching behavior (Stets & Burke, 2006). When people adopt a certain identity, they are motivated to live it, and the extent to which this is accomplished depends on the importance they place on that identity (Stets & Burke, 2006). In relation to health, a "healthy-eater" identity may promote behavior that corroborates how they self-identify (Strachan & Brawley, 2009). Studies have given relevance to this claim and some have even found that individuals who were classified as healthy eaters were more likely to practice healthy eating habits compared to those who were classified as non-healthy eaters (Stets & Burke, 2006). In another study, individuals who reported a high score of healthy-eater identity reported more frequent fruit and vegetable consumption (Strachan & Brawley, 2009). These findings further validate the identity theory.

This framework can also be applied to cultural identity. For American immigrants, they often have to balance their traditional identity from their heritage culture and the identity they develop from the receiving culture, in this case, the United States. Serving as a proxy for this

development is acculturation, or the process by "which immigrants adopt the values, beliefs, and behaviors of the host country (Schwartz et al., 2006). The extent to which these two worlds interact depend on an individual's identity, as described above (Schwartz et al., 2006). Often, individuals apply an adaptive acculturation strategy such as biculturalism, or when an immigrant adopts certain values, beliefs, and behaviors from the receiving culture while simultaneously retaining aspects of their heritage culture (Berry, 1997). Furthermore, one's social and cultural environment play a large role in shaping their identity (Schwartz et al., 2006). For the Filipino American, the push-and-pull from two different cultures can be best conceptualized through their choice of eating habits, otherwise known as dietary acculturation (Satia-Abouta et al., 2002; Serafica et al., 2013). Coupled with the healthy-eater identity, this concept significantly influences the eating behaviors and perceptions on chronic disease for Filipino Americans.

Filipino Eating Habits

In accordance with Devine's research paper on the interaction between ethnicity and identity, Filipino Americans when considering food choice, must explore their ideals, or deeply held beliefs and expectations about food and eating (Devine et al., 2008). This includes taking into account how their ideals were developed through their lived experiences with ethnic, family, and regional food traditions (Devine et al., 2008). The strength of their ideals becomes particularly salient when an individual begins prioritizing healthy eating behaviors (Devine et al., 2008). For example, depending on their level of acculturation, Filipino Americans may find it difficult to relinquish their traditional eating habits for more healthy options.

When describing healthy eating habits, people typically explain healthy diets in "terms of food, food components, food production methods, physical outcomes, psychosocial outcomes, standards, and personal goals" (Bhimla et al., 2017). Overall, Asian American populations

perceive their traditional diets to be healthier than the food they are exposed to in the United States (Harrison et al., 2005; Satia et al., 2000; Serafica et al., 2013). For the Filipino, their traditional diet and its overall healthiness has come into question. Several research studies have found the traditional Filipino diet of rice, fish, and meat, with small servings of fruits and vegetables is lacking in overall nutritional quality (Abris et al., 2018; Food and Nutrition Research Institute of the Department of Science and Technology, 2008; Serafica, Reimund C Ceria-Ulep, Clementina D Lane, 2015). In 2008, the Food and Nutrition Research Institute (FNRI) of the Republic of the Philippines conducted a National Nutrition Survey (NNS) aimed at determining the eating habits of the Filipino people. Results from the study showed that Filipinos in the Philippines consumed diets high in sodium, fat, and carbs (Food and Nutrition Research Institute of the Department of Science and Technology, 2008). The regular consumption of rice, a staple food in Filipino culture and their main source of carbohydrates, has been blamed for their elevated blood sugar levels and increased risk of T2D (Finucane & McMullen, 2008; Serafica, Reimund C Ceria-Ulep, Clementina D Lane, 2015) This effect has been documented in Chinese and Japanese populations which indicated that for each daily single serving intake of white rice, the relative risk of T2D increases by 1.11 [95% 1.08 to 1.14] (Hu, Pan, Malik, & Sun, 2012). Due to their high consumption of fatty and sodium rich foods, researchers attribute their diet as one cause of the heightened risks of diabetes (Choi et al., 2011; Cuasay et al., 2001; Finucane & McMullen, 2008; Serafica et al., 2013) and hypertension (Dela Cruz & Galang, 2008; Ursua et al., 2013; Ye et al., 2009), seen in Filipinos.

Healthy Immigrant Effect

Immigrants who migrate to the United States experience a change in their overall dietary pattern which subsequently impacts their health (Vargas & Jurado, 2015). Known as the

"healthy immigrant effect," it states that immigrants arriving to the United States, are on average, healthier than their American-born counterparts but this advantage deteriorates the longer they reside in the host country. (Antecol & Bedard, 2006; Argeseanu Cunningham et al., 2008; Sanou et al., 2014; Ursua et al., 2013). Research has shown that the new host culture can potentially promote unhealthy weight gain (Delavari, Sønderlund, Swinburn, Mellor, & Renzaho, 2013), and high blood pressure (Steffen, Smith, Larson, & Butler, 2006) compared to their traditional culture. For Filipino Americans, previous studies have shown that those who were more acculturated consumed less traditional Filipino foods (Ursua et al., 2013; Vargas & Jurado, 2015). For Filipino Americans, the shift towards an energy dense American diet lacking dietary diversity became the strongest indicator for an increase in weight, BMI and waist circumference (Serafica, Reimund C Ceria-Ulep, Clementina D Lane, 2015). However, some studies did not find significant evidence to make this claim (Vargas & Jurado, 2015). These inconclusive findings highlight the complexity of this issue. Although a substantial amount of Filipino health research considers the traditional Filipino diet to be unhealthy, it's causal impact on the health of Filipino Americans is far from certain.

Dietary Acculturation

Dietary acculturation serves as one explanation for this discrepancy (Satia-Abouta et al., 2002; Serafica et al., 2013; Vargas & Jurado, 2015). The extent to which immigrants maintain their traditional diet as oppose to the American diet relies on how willing they are to adopt new behaviors in place of their own. This process can often end with personal and social consequences as the individual must weigh and prioritize their multiple identities (Devine et al., 2008). They must rethink their current ideals and modify them, so they are suitable to their new environment. However, as Berry points out, it is entirely possible to practice biculturalism and

maintain aspects of both identities (Berry, 1997). This requires a supportive social and cultural environment, which provides the individual access to aspects that will allow them to continue to practice their traditional ideals.

One study suggested that low dietary acculturation or a high affinity for a traditional Filipino diet depends on the availability and affordability of Filipino foods in the community through local markets and restaurants (Satia, Kristal, Curry, & Trudeau, 2008). More evidence of this pattern has been found in other immigrant populations (Ayala, Baquero, & Klinger, 2008; Pestano-Binghay, Chávez, Langenberg, Persky, & Sha, 2012; Sanou et al., 2014). Additionally, Filipino food can be accessed and consumed at Filipino social gatherings (Azar, Chen, Holland, & Palaniappan, 2013). During these events, Filipino Americans consume "Festival Foods," or dishes that are typically high in fats and calories (Azar et al., 2013). In the Philippines, these types of foods are typically reserved for special occasions. However, in the United States, they are being consumed more frequently (Azar et al., 2013) and those who attend these events were hypothesized to have lower levels of dietary acculturation (Azar et al., 2013). The studies conducted by Azar and Satia-Abouta both showcased how community and social factors can influence an individual's level of dietary acculturation, allowing them to practice their traditional ideals. Other studies that explored the effect of social relationships on health behaviors and acculturation have found both positive and negative effects. For example, dietary acculturation for parents can be impacted by the dietary preferences of their children. This relationship can push adults to alter their family diet from more traditional dishes to foods that their child will consume (Patil et al., 2009). Often, these foods are nutrient poor and energy dense (Patil et al., 2009). Other studies have found that the attitudes of family members, friends, and healthcare professionals act as reinforcing factors of food choices, of which can be both healthy and

unhealthy (Satia et al., 2008). These findings, in accordance with the Devine's hypothesis of the interaction between food choice and identity, showcase how population-level determinants such as an individual's community and interpersonal environment can impact their eating behaviors and level of dietary acculturation (Devine et al., 2008).

It is important to note that within the overarching Filipino American population exists subgroups of people whose identities and ideals are completely different than those of first-generation immigrants (Bayog & Waters, 2018). These differences can result in dramatic differences in health beliefs, behaviors, and consequently health outcomes in relation to healthy eating and chronic disease. Often, these factors are utilized as determinants of dietary acculturation. For example, as previously stated, the length of time an immigrant stays in the United States changes their eating behaviors (Serafica et al., 2013; Vargas & Jurado, 2015). Additionally, researchers also measure dietary acculturation by accounting for generation status (Guendelman & Abrams, 1995; Sanou et al., 2014), and birthplace (Ayala et al., 2008; Sanou et al., 2014).

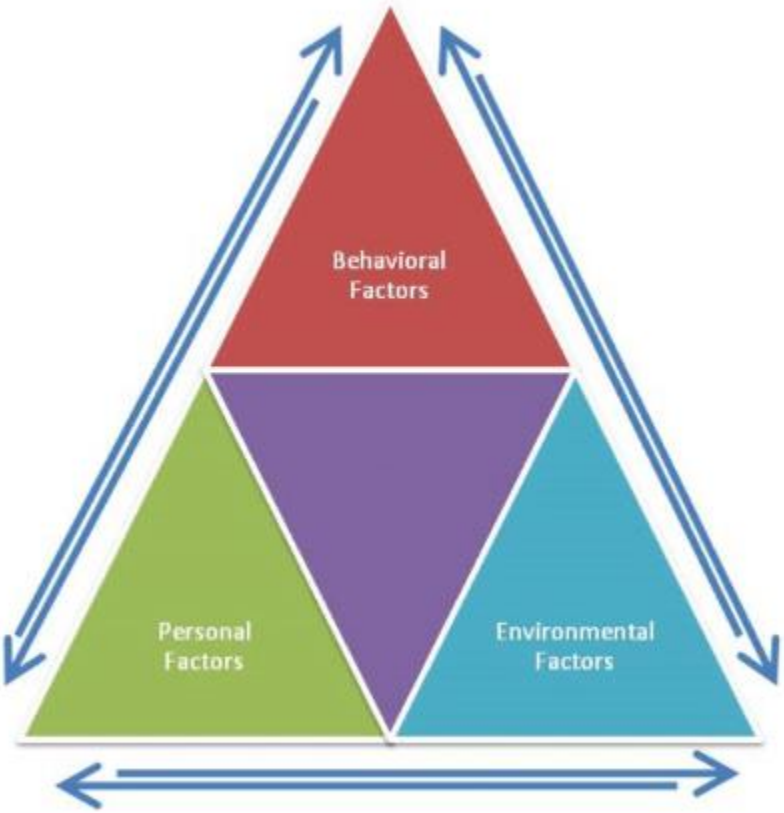
In general, there is evidence to suggest that immigrant children and adults have a lower risk of obesity and overweight than their native-born counterparts (Singh, Kogan, & Yu, 2009). Generation and birth status were found to increase the risk of overweight and obesity in Whites, Blacks, but not in Latino or Asian Americans (Singh et al., 2009). However, this study did not disaggregate the Asian ethnic category which limits its applicability to Filipino Americans. In contrast, a recent study conducted with Filipino Americans reported that being a second-generation immigrant may be protective against hypertension and diabetes but not for unhealthy behaviors such as overweight and obesity (Bayog & Waters, 2018). This finding contrasts with

previous literature and brings up additional questions regarding generational status and uptake of unhealthy behaviors in Filipino Americans.

Perceptions of Healthy Eating and Chronic Disease

Preventing nutrition-related illnesses such as diabetes and cardiovascular disease begins with a healthy diet (WHO & FAO, 2003). For an unhealthy individual, this often involves developing the necessary knowledge, skills, and attitude required to initiate and sustain changes in eating habits (Anderson, Winett, & Wojcik, 2007). Certain attributes of an individual may affect their ability to progress through these stages. The Social Cognitive Theory (SCT), created by Albert Bandura explained this difficult process by focusing on human agency, or the ability to change and subsequently maintain one's own behavior (Bandura, 1989). According to his research, this process of learning occurs in a social context, shaped by the dynamic interaction between personal, behavioral, and environmental factors (Bandura, 1989). These three features in concert with an individual's current and past social influences, are said to dictate whether someone changes their behavior (Wayne W. LaMorte, MD, PhD, 2016). Figure 1 depicts Bandura's model of the SCT and focuses on the Triadic Reciprocal Determinism, or the interaction between the previously mentioned domains.

Figure 1. Albert Bandura's Social Cognitive Theory – Triadic Reciprocal Determinism

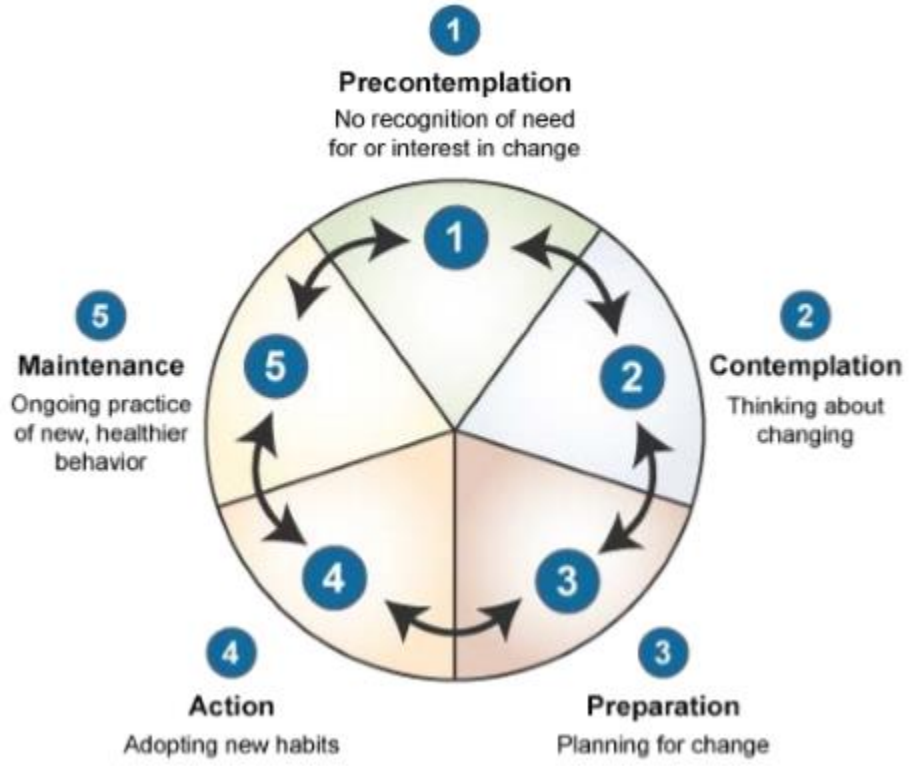


Adapted from 'Self-Efficacy and Social Cognitive Theories' by Redmond B, 2016

The process of behavior change is lengthy but can be best conceptualized with the Transtheoretical Model (TTM), an integrative, biopsychosocial framework which outlines the process of behavior change in five distinct steps. (Prochaska & Velicer, 1997) and can be visualized in Figure 2. Beginning at the pre-contemplation phase, a successful individual will traverse through the contemplation, preparation, action, and maintenance phases of this model (Prochaska & Velicer, 1997). The time spent at each stage varies by person and individuals may move through the steps in a non-linear fashion, reverting back to previous stages after missteps and failures (Prochaska & Velicer, 1997). The likelihood that an individual progress through the TTM relies on the characteristics outlined by Bandura and the SCT. These two theories have

been used separately to explain behavior change (Elder, Ayala, & Harris, 1999; Maibach & Cotton, 2013; Spahn et al., 2010) , however rarely have they been used in conjunction with one another.

Figure 2. Transtheoretical Model & Stages of Change



Adapted from Prochaska, J & Di Clemente, C, 1982

Pre-Contemplation and Contemplation

The first two stages of TTM, precontemplation and contemplation are similar in most aspects except that the former is resistant to change, and the latter has expressed an intention for change in the near future (Prochaska & Velicer, 1997). Certain attributes of an individual may affect their ability to progress through these stages. According to the SCT, the dynamic interaction between a person's environment, individual self (their learned experiences), and their

behavioral capacity dictate how likely they are to succeed in behavior change (Bandura, 1989). Although it has been theorized that all three factors have equal impact, previous studies have cited environmental factors as stronger influences than personal or behavioral factors (Booth, Owen, Bauman, Clavisi, & Leslie, 2000) of behavior change and vice versa (Anderson et al., 2007).

According to Bandura, an individual's personal factors, or their perceived level of knowledge, barriers, and motivation, are essential in facilitating behavior change. For example, an individual trying to take up a healthy diet may be reluctant to modify their traditional eating habits because of certain barriers such as foregoing cultural food practices (Shaw et al., 2009). For someone in either the pre-contemplation or the contemplation phase, one may have considered this barrier to healthy eating and resisted the idea of change. Explanations for this behavior include a lack of knowledge on the importance of the proposed behavior change or a lack of motivation to surpass perceived barriers (Prochaska & Velicer, 1997). One study researched how nutritional knowledge related to perceived healthiness influenced people's willingness to try functional foods or foods that beneficially assist the body's physiological response, in addition to providing nutrients and energy (Ares, Giménez, & Gámbaro, 2008). The authors found that those with lower levels of knowledge were not interested in consuming functional foods (Ares et al., 2008). In Asian Americans, this behavior has also been documented. A study conducted with low-income Chinese, Vietnamese, and Hmong Americans in California reported that a majority of participants had a general lack of knowledge about recommended levels of fruits and vegetable consumption and their specific health benefits (Harrison et al., 2005). This reason among others was cited as an important factor in the population's inability to practice health eating (Harrison et al., 2005). Filipino Americans were

not considered in this study. Other research has reported low levels of knowledge diabetes and hypertension in the population (Dela Cruz & Galang, 2008; Finucane & McMullen, 2008; Stavig et al., 1984).

In addition to perceived healthiness, evaluating a person's perceived benefit from healthy eating is also an important factor in determining overall motivation for behavior change. For children and adolescents, one study found that the perceived benefits of healthy eating were improved cognitive and physical performance, physical sensation, and increased energy levels (O'Dea, 2003). In adults, this pattern is apparent as well (Conner, Norman, & Bell, 2002). Satia et. al conducted a secondary analysis of data of 1205 adults in a Health Maintenance Organization and found that the majority of participants believed it very important to make dietary changes to feel better and to control an already existing medical issue (Satia et al., 2008). Additionally, they found that personal health was a more important motivator for older persons and men (Satia et al., 2008).

Those who find themselves in the both the precontemplation and contemplation phase may also be there due to previous unsuccessful attempts at changing their own behavior. This situation touches upon Bandura's preposition of self-efficacy, or an individual's ability to have a positive reaction to failure and still believe in their ability to achieve their goal (Bandura, 1999). The SCT alludes to this as the difference between an individual's personal motivation and behavioral ability to continue with behavior change (Bandura, 1999; Brug, 2008). A person's level of self-efficacy has been shown to influence their attempts and persistence at reaching goals and their reactions to setbacks (Strachan & Brawley, 2009). When measured, it has been shown to improve the prediction of healthy eating, for both fruit and vegetable consumption and intake of foods of low nutritional value (Strachan & Brawley, 2009). Translating these findings to

Asian American populations is more difficult due to the scarcity in public health literature on this topic. The only studies which directly address the role self-efficacy has on diet in Asians are fat-related and dietary behavior with Chinese Americans (Liou & Contento, 2006) and fruit consumption behavior in Asian Indians (Weber et al., 2015). Interestingly, both studies found that low self-efficacy played a significant role in participant's behavioral inability to practice healthy eating behaviors (Liou & Contento, 2006)(Weber et al., 2015). The study conducted by Liou also took into account how self-efficacy differed based on level of acculturation. Foreign-born Chinese Americans scored higher on self-efficacy items related to preparing low-fat dishes and modifying recipes to make them lower in fat (Liou & Contento, 2006). Liou hypothesized and cited previous literature which stated that first generation Chinese Americans are more likely to have learned to prepare and cook traditional foods (Liou & Contento, 2006). This is in-tune with findings stated previously and emphasizes the role acculturation plays in this process. Research on the direct relationship between self-efficacy and healthy eating behavior has not been thoroughly investigated in Filipino Americans. However, a study with this population in New York and New Jersey assessed the effectiveness of a community health worker intervention to improve hypertension management, found that a participant's self-management of their disease relied on their level of self-efficacy (Ursua et al., 2014).

Additionally, an individual's perception of risk from unhealthy eating habits works in tandem with their level of self-efficacy (Rimal, 2001). This relationship plays an integral role in their transition from TTM's stage of precontemplation to contemplation as they are both a reliable predictor for preventative health behavior (Rimal, 2001). Rimal explored this interaction and found that when an individual's risk perception was low, self-efficacy was not correlated with motivations to change behavior. Alternatively, when risk perception was high, those with

high self-efficacy were more likely to contemplate behavior change (Rimal, 2001). Furthermore, a study conducted by Wang et. al with healthy adults sought to compare the perceptions of risk, worry, severity, and control across multiple chronic diseases and identified differences in perceptions based on gender (Wang et al., 2009). Both men and women perceived heart disease as a high-risk disease but also the most controllable. Diabetes was perceived to be the least severe condition (Wang et al., 2009). Furthermore, women had a higher perceived risk and worry rating compared to men for several diseases including heart disease, diabetes, and stroke (Wang et al., 2009). Although these findings generalize a demographic group's perception of risk of chronic disease, it is important to remember that there is a wide variation in an individual's feelings of personal vulnerability to an illness. Overall, in both the pre-contemplation and contemplation phase, personal and behavioral factors such as low levels of knowledge, motivation, and self-efficacy play important roles in behavior change.

Preparation

In the TTM, the preparation phase occurs when a person plans to take action in the immediate future and has already made steps towards action such as joining a gym or talking to their physician (Prochaska & Velicer, 1997). Pushing through this stage requires an individual to have the knowledge and the ability to succeed with behavior change (Bandura, 1989) but certain environmental factors can inhibit an individual's capacity to enact change (Brug, 2008). For Filipinos, a qualitative study conducted by Dela Cruz, found that Filipino Americans living in Los Angeles and San Diego understand that practicing a healthy diet is an important factor to maintaining good health (Dela Cruz & Galang, 2008), but they cited environmental barriers to following through including cost of vegetables and fruits, lack of access to grocery and Filipino stores, and social engagements abundant with unhealthy festival food (Azar et al., 2013; Dela

Cruz & Galang, 2008). Other research studies have identified similar barriers to accessing healthy foods for Filipino Americans (Bhimla et al., 2017; Serafica et al., 2013) but to our knowledge, no similar research has been conducted in Atlanta, Georgia. Their findings coincide with a multitude of other studies conducted with Asian American populations that highlight similar barriers to healthy eating (Harrison et al., 2005).

Action and Maintenance

The final two stages of the TTM, Action and Maintenance, focus on the stage of behavior change when an individual has made specific modifications to their lifestyles for 6 months and up to 5 years, respectively (Prochaska & Velicer, 1997). In terms of healthy eating, examples of actionable behavior change would include the regular consumption of fruits and vegetables, sustained fat reduction in overall diet and increased consumption of fiber (Glanz et al., 1994). Individuals who make it to this stage were successful in overcoming all aspects of the first three stages. One study focused on fruit and vegetable consumption among low-income African-American adolescents found that those who found themselves in the action and maintenance phase were more likely to focus on perceived benefits of behavior change and had higher self-efficacy score. Subsequently, they consumed fruits and vegetables at a higher and more consistent rate (Di Noia, Schinke, Prochaska, & Contento, 2006). Furthermore, those participants in the action-maintenance phase utilized processes of change tools, or the skills and knowledge they learned through the program, more frequently (Di Noia et al., 2006). Glanz et. al utilized survey data from the Working Well National Cancer Institute Study to determine the distribution of demographic factors, BMI, and dietary intake among over 20,000 workers. They found that older workers, females, and those with a formal education were more likely to be in the action or maintenance stages of dietary change (Glanz et al., 1994). This finding coincides

with previous statements in this paper on how certain demographic populations such as women, older people, and educated individuals are more likely to practice and sustain behavior change.

For Filipino Americans, their willingness to take action and maintain changes in behavior has been researched but rarely do studies take into account the role acculturation plays in this whole process. One comprehensive lifestyle intervention conducted with Filipino Americans in San Diego, California successfully implemented a community-based nutritional and physical activity intervention that increased the likelihood that the study population would eat a low-fat diet (Dirige et al., 2013). It also found that any form of health education would increase the percentage of participants consuming five servings or more of fruits and vegetables per day (Dirige et al., 2013). From baseline to 18-month follow-up, participants moved up on average one phase within the stages of change framework of the TTM (Dirige et al., 2013). Overall, this program was successful. However, it's summation of all participants level of change made it difficult to determine the distribution among the five levels at baseline and follow-up. Therefore, the true impact of the program is unclear. Furthermore, the intervention failed to mention how acculturation and traditional eating habits may have affected the outcome of the program.

Chapter 3: Methods

Utilizing qualitative methodology, this study sought to collect information from Filipino Americans living in Atlanta regarding their opinions on culture, eating habits, and perceptions of chronic disease. In-depth interviews with Filipino American adults were conducted as part of a student-led independent research study with faculty from the Rollins School of Public Health and the Nell Hodgson Woodruff School of Nursing at Emory University. Data collected and analyzed through this study will be used to provide public health researchers with foundational knowledge on the health of Filipinos in Atlanta as it relates to nutrition-related chronic disease. Approval from the Emory University Institutional Review Board (IRB) was obtained prior to initiating the study (IRB #00107631). This study did not receive any institutional funding and was completely self-funded by the lead researcher.

Study Design

A multi-thematic interview tool was designed to gather rich data from Filipino men in Atlanta concerning their perceived cultural identity, acculturation, eating habits, and their perceptions of healthy eating and chronic disease prevention (Appendix A). Each question utilized in the tool was developed and compared against similar research studies (Dela Cruz & Galang, 2008; Inc, 1995) and incorporated behavioral theory such as the Health Belief Model (HBM) (Janz & Becker, 1984). The 14-question interview guide was finalized through collaboration with the research team. The length of interviews ranged from 30 minutes to 70 minutes (mean = 42.3 minutes), and the majority of these interviews were conducted over the phone (n=5/7); the remaining interviews were face-to-face. The in-depth interview tools did not vary by interview method except for the introductory script which included instructions on specific to interview implementation. Interviews were conducted in English by the Principal

Investigator, a trained and experienced qualitative researcher who is a member of the Filipino American Community.

Table 1. In-Depth Interview Guide Example Questions.

Domain	**Question**	**Probe**
Perceived Cultural Identity	When someone asks you where you are from, what do you usually say?	Does this coincide with your perceived cultural identity?
Acculturation	In your opinion, do Filipino Americans have different attitudes towards health than non-Filipinos?	Can you give me some examples?
Eating Habits	Please describe what your family typically eats for breakfast, lunch, and dinner.	Do you eat mostly American foods or Filipino foods?
Perception of Healthy Eating	When I say "eating healthy" what comes to mind for you?	IF they say eat more vegetables, respond with, what does eating more vegetables mean to you?
Perceptions of Chronic Disease Prevention	How susceptible are Filipino Americans to chronic disease?	Do you have personal experience combating a chronic disease?

The interview guide was then finalized through collaboration with the research team. Prior to each interview, informed oral-consent was collected, either in person or over the phone, to obtain permission to record the interview, to ensure participants fully understood the goals of the study, the interview format, respondent burden, and the potential risks and benefits in participating. All interviews were recorded using digital audio devices. In order to maintain participant confidentiality, all names and other identifiers were removed from the survey and replaced with a study ID. Interviews were transcribed verbatim by the research team.

Study Population and Recruitment

In order to be eligible for the study, participants had to be 18 years or older, live in or near the Atlanta metro area, and self-identify as Filipino or Filipino-American. Participants were recruited from several sources including through Filipino community organizations, social media, and local Filipino food establishments. Recruitment methods included the distribution of flyers, posting on Facebook, connecting with community gatekeepers, and by participating in Filipino community events. Additionally, snowball sampling was chosen to reach more members of the Filipino community, whereby participants were asked to recommend other community members who may want to be interviewed. Other than age, participants were not recruited based on any other demographic category to ensure that the study population included people from a wide range of backgrounds.

Data Analysis

The interviews were transcribed verbatim and then coded using MAXQDA 2018, a qualitative data manipulation software. In order to succinctly summarize and analyze concepts surrounding cultural identity and perceptions of chronic disease prevention, this study implemented both descriptive and group-based methodology for data analysis. Utilizing Burke's Identity Theory as a framework, all transcripts were thoroughly reviewed for participant perceptions of what ideals embody Filipino and American identity, Healthy Eater and Unhealthy-Eater Identity, and acculturation. Within the transcript, memos were used to summarize the data and a codebook was created to identify codes related to these themes. Sub-codes were created to explain the data in further detail.

Additionally, a group-based methodology for analysis was incorporated with the goal of identifying patterns and relationships between perceived cultural identity, healthy eater identity,

and behavior change related to chronic disease prevention. For this reason, participants were separated into distinct groups based off two indicators. The first grouped the men based on how they culturally self-identified when asked "When someone asks you where you are from, what do you typically say?" Each participant stated either they identified as Filipino or Filipino American. Furthermore, participants were inductively labeled as healthy or unhealthy and then further separated into either category. The rationale and methodology behind this additional categorization relates to Strachan's theory of Healthy-Eater Identity. In her study, she states that a healthy eater is someone who is concerned about his or her diet and who practices healthy eating habits (Strachan & Brawley, 2009). She concluded that self-identified healthy eaters would seek "identity behavior congruency" (Strachan & Brawley, 2009). Therefore, it was important to determine if a patient's perception of healthy eating coincided with his or her own eating habits (Strachan & Brawley, 2009). This study examined this concept among Filipino men and utilized it as proxy for a healthy eater. If the daily eating habits of Filipino men in this study coincided with their perceptions of healthy eating, they were labeled as a healthy eater. If they did not, they were labeled the opposite

Finally, using the Social Cognitive Model as a framework to understand dietary behavior change, group perceptions on sub-codes relating to perceived barriers, perceived risk, motivation, self-efficacy, healthy eating practices, and social influences were examined and analyzed for potential patterns and relationships. Ultimately, a conceptual framework was generated highlighting how cultural and healthy eating identity influence personal, behavioral, and social factors to dietary behavior change in Filipino men in Atlanta.

Chapter 4: Results

Population Characteristics

Demographic indicators were collected from all participants prior to the interview and the results can be found in Table 1. The majority of people interviewed were older than 40 years old and lived in the United States for more than 20 years. All 7 participants received at least a Bachelors degree, and three of them attained a Masters or Doctorate. In terms of income, two individuals identified as having an annual family household income of more than $100,000. Of the remaining, three stated they had an income less than $75,000 and two refused to answer. Finally, four participants were living alone or cohabitating with a partner or roommate while the remaining three lived with their spouse and children.

Table 2. Demographic Characteristics of Study Population

Gender	**Men = 7**
Age	Less than 40 =2 More than 40 = 5
Level of Education	Bachelors Degree = 4 Masters Degree = 1 Doctorate = 2
Family Household Income	$25,000 - $50,000 = 2 $50,000 - $75,000 = 1 Greater than $100,000 = 2 Refuse to Answer = 2
Household Size	1 Person = 2 2 Persons = 2 3 Persons = 2 4 Persons = 1
Time lived in the United States	20 years < = 3 20 years > = 4

*All identified as Filipino

Overview

Through a detailed analysis of the seven interviews conducted with Filipino men in Atlanta, numerous themes emerged in regard to the role acculturation plays in Filipino perceptions of healthy eating and chronic disease. In order to highlight both uniformity and variation between the participants, this analysis will examine how their responses varied based on level of acculturation and healthy-eater identity. First, this analysis will break down how participants described the Filipino diet and the role it plays in shaping their cultural identity. Next, it will highlight their shared and dissimilar perceptions of Filipino and American diets in relation to healthy eating.

Perceptions of the Filipino Diet

When asked to described the healthiness of the traditional Filipino diet, most participants believed that certain aspects were unhealthy. Most of the men felt that Filipino food was often high in fat, carbs, and salt. In terms of preparation, the regular frying of foods, the inclusion of MSG, and the use of flavor packets instead of natural ingredients was noted as an unhealthy cooking practice. In terms of vegetable consumption, several participants believed that traditional Filipino dishes typically did not contain many vegetables. One participant stated that Filipino dishes are "not so heavy on vegetables…so you kind of have to add stuff on the side, if you particularly want to eat vegetables" (9). However, in contrast, a couple participants stated the opposite saying that certain Filipino dishes were rich in vegetables. Overall, the likelihood of vegetable consumption seemed to be more reflective of healthy eating behaviors as oppose to their consumption of Filipino food. Finally, the overconsumption of white rice was identified by almost all participants as an unhealthy aspect of the traditional Filipino diet. A couple of

participants stated that they would consume rice for breakfast, lunch, and dinner and several other participants even likened Filipino rice consumption to an addiction. He stated,

> *"Although, there are a few who realize that too much rice is not good for you, but they still do it anyway because of addiction. They crave that sugar content in rice." (8)*

The one participant who did not think rice consumption was a health issue instead labeled it as a healthier option to what Americans typically eat. Culturally, several participants stated that "Filipinos eat until they are full" (12) as oppose to eating until they are no longer hungry. Additionally, they felt that Filipinos typically eat more for flavor and pleasure and less for their health. Participants who felt this way were more likely to be healthy eaters.

Filipino Food and Identity

Among all men, consuming Filipino food was a way for them to connect with their respective Filipino identity's. However, the strength of this connection varied among participants. In terms of frequency of consumption, less than half of participants stated that they ate Filipino food as much as they could. One said that some Filipinos "can't even survive without eating Filipino food" (13). In comparison, another participant only ate Filipino food "as a treat" (14). This divide could not be explained by an individual's self-reported cultural identity as one's consumption of Filipino food did not vary based on whether they identified as Filipino as oppose to Filipino American. However, men who identified as Filipino were more likely to know how to prepare Filipino foods. The ability to cook Filipino food was identified as a contributor to regular Filipino food consumption. Additionally, accessing Filipino food outside of the kitchen required knowledge of the location of Filipino restaurants or markets and also through social gatherings. Some participants accessed Filipino food through their social relationships such as family gatherings and Filipino parties. Furthermore, Filipino men with

children expressed their desire to pass onto their children the knowledge of traditional Filipino food practices in order to preserve traditional Filipino traditions and values. Overall, these men all expressed their love for traditional Filipino food, but their frequency of consumption relied on their level of access to this diet.

American Diet and Identity

Participants also expressed their experiences living in the United States and how it has molded their identity and their eating habits. One man said that he has developed "more of an American perspective on things" (14) the longer he lives in the United States. Based on their self-reported eating habits, most of the men in this study ate more American types of food compared to Filipino food, regardless of how they culturally identified. The type of "American food" they consumed depended on their healthy-eater identity. Those who were identified as healthy eaters prepared dishes that were made up of healthy ingredients such as whole grains, vegetables, and lean meats. This represented one side of the "American" diet. The other, more pervasive perception of the American diet was described with words such as convenience, instant, cheap, greasy, and fried were routinely used to describe the American diet. All participants mentioned fast food as an example of the American diet, specifically eating Chick Fil-A if they wanted a quick meal. Additionally, one participant described American food as a "food product and not real food" (7). Furthermore, the cost of these unhealthy foods were cited as reasons for choosing to consume them. This alternative perception of the American diet was more common among the study population compared to the healthier version mentioned earlier.

Health Identity

Of the seven participants in this study, five of them were considered healthy-eaters based off their perceptions of healthy eating and their subsequent self-reported eating habits. According to these Filipino men, a healthy diet is balanced, free of pesticides or chemicals, low in sugar, salt, and fats, and high in vegetable and fruit consumption. A couple participants also mentioned the importance of portion sizes and having the proper distribution of food groups on your plate. A majority of these participants shared the perspective "eat to live and not live to eat." In terms of daily eating habits, all participants practiced a health-conscious diet. Their balanced and diverse diets included incorporating complex carbohydrates such as quinoa and brown rice in their diet in addition to vegetables and lean meats or plant-based protein. Furthermore, a majority of participants made efforts to reduce their sugar and salt intake through their specific food choices. In regard to traditional Filipino food, two of the participants consumed this diet somewhat regularly. In order to maintain their healthy eating habits while consuming Filipino food, one participant attempted to modify the dishes to improve their overall healthiness. For example, he stated,

> *"For example, if we make adobo or sinigang. Let's say adobo where usually it's cooked with pork or chicken, we've actually substituted fried tofu now to make it healthier" (7).*

The other participant would routinely include vegetables in all the Filipino dishes he prepared. Additionally, the other two participants did not consume Filipino food very often. For all four Filipino Healthy Eaters, they would occasionally eat out at restaurants or fast food and they would limit these occurrences and still attempt to incorporate healthier choices into their meal.

The remaining study participants were classified as non-healthy eaters due to the contradiction between their perceptions of healthy eating and their self-reported daily eating

habits. When asked to describe their perceptions of healthy eating, both participants briefly described having a balanced diet and eating fruits and vegetables. In comparison, their daily eating habits did not coincide with their own perceptions. Both participants ate white rice and eggs for breakfast every day, a traditional Filipino practice. Additionally, they did not mention including any vegetables in their diet. Both the participants identified as Filipino and were both able to prepare traditional Filipino foods. Finally, these two Filipino men had lived in the United States for the shortest amount of time compared to rest of the study population.

Participants Placement Within Transtheoretical Model

In accordance with the TTM, the majority of the Filipino men in this study would fall into either the action or maintenance phases of this framework. Based on their responses, they have already taken action to change their eating behaviors and prioritize healthy eating. In relation with the SCT, each individual exhibited a high level of knowledge on the benefits of eating and ways to put it into practice. All participants in this group, when reflecting on the eating habits of others, identified a relationship between a lack of education and unhealthy eating habits. In contrast, the non-healthy eaters in this study would be sorted into the contemplation phase of this framework. Based off their responses, these individuals have an awareness of the benefits of eating healthy, but do not make significant efforts to change their diet. Overall, no overarching demographic variable can potentially explain the perceptions of healthy eating and the eating habits of the study population. Socioeconomic status and age varied among all participants and no connection between these variables and perceptions of healthy eating were identified.

Barriers to Healthy Eating

For these Filipino men, a lack of education, lack of ability, and lack of self-efficacy were cited as the main barriers to practicing healthy eating. These factors were identified from their own personal experiences. In regard to a lack of education, most participants understood that people who are less educated are more likely to eat unhealthy. A couple of participants believed this lack of education is a direct result of a low-perceived risk of danger when it comes to eating unhealthy. For example, one participant mentioned that Filipinos are not aware of the risks of an unhealthy diet until they have experienced a health event. He states,

> *They just don't know about it because it never rose up. That's why you see some people just have one episode and they're dead. I made this comment to a friend of mine, I said, "Sometimes, it's a lot better if you're a sick person, you live longer because you get monitored." I mean at my age, there are just some people who are now, they just drop dead out of nowhere, that, "Well, I don't know, he wasn't sick," well, he was sick, he just didn't know about it" (12).*

This perception was not shared by some participants, most notably non-healthy eaters. These men perceived the risk of chronic disease as low for Filipinos as compared to other ethnicities. They drew upon their personal relationships with their healthy parents and grandparents as the basis for their beliefs. Their low level of perceived risk resulted in a low level of concern in connection to their eating habits. For other participants, the perceived risk of chronic disease among Filipinos was much higher and stemmed from their own individual or familial experiences with chronic disease. In addition to diet, genetics was consistently mentioned as a risk factor for illnesses such as diabetes, hypertension, and cardiovascular disease. For non-healthy eaters, genetics was seen as a risk factor for a disease such as cancer, but not for diet-

related illnesses. Overall, all participants have either personally experienced or have a family member with a chronic disease. However, non-healthy eaters seemed to downplay its significance.

In regard to a lack of ability to eat healthy, several healthy-eaters expressed the need to increase the awareness and ability of the Filipino community to prepare healthier alternatives or variations of traditional Filipino diet. This in their minds, would involve teaching Filipinos how to utilize healthier ingredients to make the same Filipino foods. One man specifically stated the need to show to the Filipino community that healthy traditional food can also be delicious. He says,

> *"If you can show people that healthy food can be delicious or there are healthy alternatives to the dishes that you loved, for example, maybe there's a less fatty option, a less fatty way of cooking adobo, for example. But it still taste the same and it's just as good then maybe people will eat that" (14).*

Several other participants felt the same way and also referenced the importance of using social media platforms like YouTube as an outlet to showcase alternative Filipino recipes. Moreover, one participant mentioned how he was currently working on creating a plant-based Filipino cookbook filled with healthy Filipino recipes.

Other barriers hampering participant's ability to practice healthy eating included a lack of time, work schedule, access and cost of organic vegetables, and stress. Additionally, certain social engagements and relationships made it more difficult for participants to change and maintain their behaviors. For example, one participant mentioned how Filipino parties are abundant with "too much meat, too much starch, and…there's not enough vegetables" (8) otherwise known as "Festival Foods". Another man with a family mentioned how differing

eating habits in a household can inhibit one's ability to eat healthy, especially since his children had difficulty eating vegetables.

Moreover, an individual's resistance to healthy eating, whether a product of a lack of education or ability, was cited as a major barrier to behavior change by almost all participants. Several Filipino men, both healthy and non-healthy eaters, identified how Filipinos are resistant to change and therefore are "stuck in their ways" in relation to their unhealthy eating habits. For a couple of participants, this resistance was related to age and generational level as older Filipinos or first-generation immigrants in their opinion would be less likely to change their eating habits. According to one participant, the familiarity of their innate eating habits makes them resistant to change and the cultural value attached to traditional Filipino food makes it much more difficult to initiate a change in their diet. In contrast, several participants mentioned how younger Filipino Americans or second-generation immigrants are more likely to change their eating habits because they are more health conscious and better equipped to care of their health.

Finally, the addictive nature of unhealthy food was cited as a difficult barrier for most people to overcome. More than half the participants believed that Filipinos typically "eat for flavor, and not for their health" and some equated their love for food as an addiction. This barrier did not necessarily influence the eating behaviors of healthy eaters in this study as they exhibited high levels of motivation and belief in their ability to practice healthy eating behaviors. Several of the participants self-identified as health conscious and strong willed. One participant mentioned how he can easily check his impulses when it comes to eating sugary or fatty foods. Others would discuss certain rules they adhere to in regard to their diet such as counting calories

and even intermittent fasting. All these aspects touch upon self-efficacy which based on their responses is high. For non-healthy eaters, this concept was less evident through their responses.

Motivators to Healthy Eating

For almost all participants, their desire to maintain their health as they aged was a major motivator to healthy eating. This was shared amongst participants of all ages and not confined to the older Filipino's. Socially, Filipino men with families stated that they wanted to remain healthy so they could be there for their children. Other social motivations to eating healthy included maintaining physical fitness for their line of work and for their own physical appeal. This was only apparent in healthy eaters. Motivations stemming from personal experiences with chronic disease were also prevalent among the study population. Participants with personal experience combating a chronic disease were strongly motivated to eat healthier and take care of their health. Those with family members expressed their desire to break familial cycles of unhealthy eating and chronic disease. Additionally, fear of poor health outcomes were identified by one participant. He said,

> *Well, number one would just be, obviously, the fear of getting fat is my main factor so to say. Or my fear of just being unhealthy just because my parents. I've seen them and still I am seeing them deal with health issues. So, obviously, I have to try to break that cycle, that generational cycle. Or else it will just be passed onto my little girl and I don't want that" (11).*

Finally, one participant also stated that his respect for animals and his concern about the growing rates of child obesity motivated him to advocate for healthy eating to his family and friends.

Chapter 5: Discussion

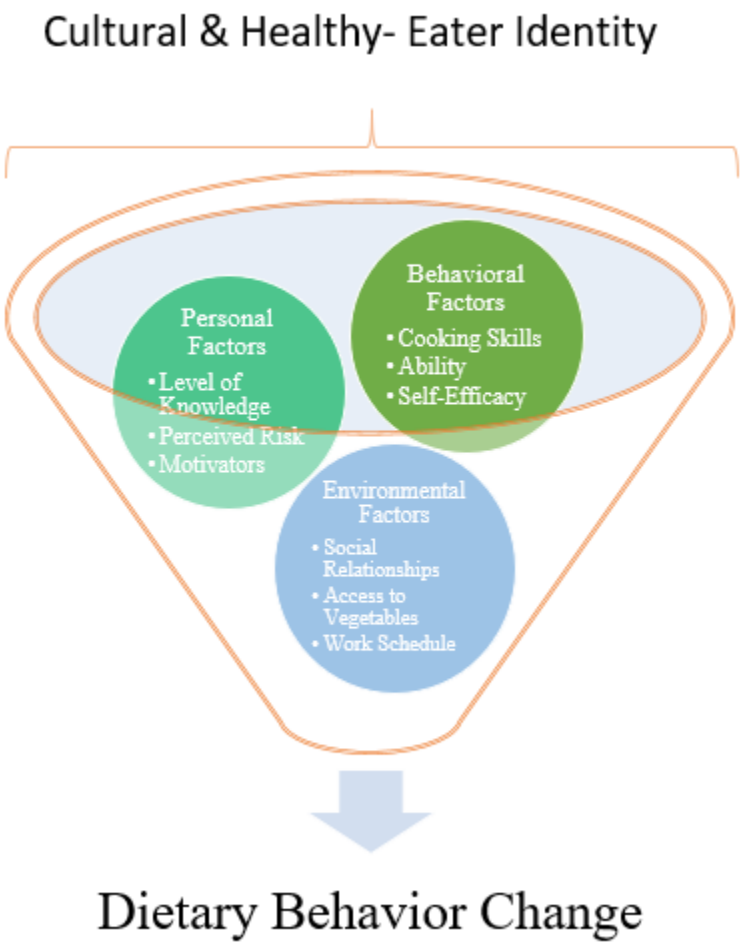
Impact of Identity on Health Perceptions

Consistent with Stets & Burke's Identity Theory, participants in this study practiced behavior congruent to both their cultural and healthy-eater identity (Stets & Burke, 2006) and these identities played a substantial role on the dietary behavior of the Filipino men in this study. Overall, all participants in this study felt a strong attachment to their Filipino identity and this played a role in whether the study population consumed more traditional Filipino food compared to American foods. This finding alludes to differing levels of acculturation among the study population and adds to the base of evidence highlighting the effect this has on maintaining traditional eating habits (Ayala et al., 2008; Sanou et al., 2014). Moreover, healthy-eater identity seemed to play a larger role than cultural identity in shaping individual health perceptions and promoting healthy eating behavior. For example, both Filipino and American diets were identified by participants as being comprised of both healthy and unhealthy components. However, regardless of type of food they consumed, healthy-eaters in this study modified their eating habits in a way that prioritized healthy eating and they were more likely to practice healthy eating behaviors as oppose to non-healthy eaters. This coincides with previous literature which found that identifying as a healthy-eater could predict fruit and vegetable intake when controlling for past behaviors (Carfora, Caso, & Conner, 2016; Strachan & Brawley, 2009). Additionally, no previous literature has addressed the dueling effects of cultural and healthy-eater identity on dietary behaviors. Future studies may want to take into account these factors when attempting to understand the eating habits of Filipino populations.

These intertwined identities were also found to shape the personal, behavioral, and environmental factors highlighted by the Social Cognitive Theory. Personal factors such as level

of knowledge, perceived risk, and motivation interacted directly with behavioral factors related to self-efficacy and ability. Environmental factors relating to access of healthy vegetables, and the influence of work and social relationships also played a role in the uptake and maintenance of healthy eating habits. All three domains functioned within the social context related to cultural and health identity. Figure 3 depicts the conceptual framework created to visualize how the SCT was used to explain these relationships.

Figure 3: Conceptual Framework



Perceptions of Risk and Self Efficacy in Relation to Filipino and American Diets

With respect to the traditional Filipino food, healthy eaters described the food as unhealthy because it is typically high in fats, carbs, and salt, with a low vegetable consumption, a conclusion consistently found in Filipino populations around the United States (Abris et al., 2018; Dirige et al., 2013; Serafica, Reimund C Ceria-Ulep, Clementina D Lane, 2015). In comparison, the American diet was often described as fast food, instant, cheap, and unhealthy. Several participants in the study felt that the consumption of more American foods was more detrimental to their health than Filipino foods while others felt the opposite way. Previous literature supports the more unhealthy nature of the American diet (Ayala et al., 2008; Azar et al., 2013) while other literature conducted in Filipino immigrants have been inconclusive (Johnson-Kozlow et al., 2011; Vargas & Jurado, 2015).

Healthy eaters within this study population expressed their belief that consumption of an unhealthy diet, whether Filipino or American, could be partially explained by a low level of perceived risk. Participants who had personal or familial experience with a chronic disease were more likely to perceive unhealthy eating as a risk to their health and wellbeing and research has shown that this could potentially result in better management of disease risk (Walter & Emery, 2005). Those who did not perceive their unhealthy eating habits as risky were also those with low levels of motivation to make changes in their diet. As referenced in previous literature, this lack of motivation influences an individual's overall level of self-efficacy (Rimal, 2001) and this factor has been described as a major barrier inhibiting Filipinos from practicing healthy eating behaviors (Ursua et al., 2014). Differing levels of self-efficacy and perceived risk have been shown to influence the initiation and maintenance of behavior change (Liou & Contento, 2006;

Rimal, 2001; Wang et al., 2009). Future studies with Filipino American populations should take into account these measures to better design nutrition interventions.

Low Level of Knowledge and Ability

Participants mentioned several factors that make it more difficult for Filipino's to eat healthy. The first, and most pervasive issue shared by the Filipino men was the low level of nutrition education within the Filipino community, a barrier which has been previously identified in this population (Abris et al., 2018; Bhimla et al., 2017; Finucane & McMullen, 2008). Overall, the discrepancy between nutritional knowledge among healthy eaters and non-healthy eaters was apparent. Previous research points to inadequate nutritional knowledge, often from unreliable sources, flawed baseline knowledge, and poor nutritional literacy, as health communication barriers which lead to low or incorrect beliefs about nutrition education (Spiteri Cornish & Moraes, 2015) and lower likelihood of healthy food consumption (Ares et al., 2008; Harrison et al., 2005). In this population, the presence of misinformed beliefs such as the non-genetic nature of diabetes, the positive health effects of consuming solely fruits, and the health benefits of white rice consumption have yet to be documented in previous literature.

In regard to ability, several participants mentioned how a majority of Filipinos do not possess the knowledge on how to prepare healthier alternatives or variations of traditional Filipino food. One participant suggested teaching Filipinos how to prepare their favorite dishes with healthier ingredients through innovative mediums such as a cookbook or through social media outlets like YouTube. Currently, only a handful of literature exists which has attempted to make traditional food more nutritious by preparing the food using alternative recipes. Studies conducted with Latino and Asian Indian populations were able to teach participants how to modify traditional foods to make them healthier while maintaining its cultural value (Dixit, Azar,

Gardner, & Palaniappan, 2011; Flores, Maldonado, & Durán, 2012). A study conducted in Hawaii with Filipinos incorporated this technique into a community diabetes prevention program found that it may help improve teaching methods and materials (Finucane & McMullen, 2008). The efficacy of these projects in improving individual ability to prepare healthy traditional dishes should prompt researchers to potentially consider similar interventions with Filipino Americans as they may potentially yield similar results

Environmental Influences on Dietary Behavior

Finally, environmental barriers inhibiting the uptake of healthy eating behaviors included access to healthy vegetables due to the high purchase costs, lack of time due to busy work schedules, and social obligations such as Filipino parties. These factors touch upon how a person's surrounding environment can influence both their motivation and ability to eat healthy and have been identified countless times within the literature . For instance, the high price of vegetables prevent lower-income individuals from practicing a healthy diet. Interventions curated to address this issue often have to resort to behavioral interventions which make it easier to afford these items as oppose to reducing the overall cost (Darmon & Drewnowski, 2015). Additionally, competing environmental influences for individual's time such as work life have been shown to lead to poorer nutritional quality of meals (Devine et al., 2007). Mitigating this issue must address improving the knowledge and ability of individuals to practice healthy eating strategies such as cooking and meal prepping which has been attempted in Filipino communities in Hawaii (Finucane & McMullen, 2008), New York, and New Jersey (Ursua et al., 2014). Finally, social influences both from friends and family can be interpreted as environmental factors that impact eating behavior. Participants in this study referenced Filipino social gatherings as an event where they are encouraged to eat "Festival foods," or unhealthy foods

high in fats and calories (Azar et al., 2013). Furthermore, several parents in this study found it difficult to persuade their children to eat vegetables which in turn affected their own eating habits. Overall, all men in this study dealt with environmental influences which affected their ability to eat healthy.

Strengths

The breadth of topics covered in this research paper provide a robust amount of data on different themes related to identity, eating habits and perceptions of health and chronic disease. The usage of multiple behavioral theories such as the SGT and the TTM allowed for a more structured analysis of the data. It also provided set measures such as personal, behavior, environmental factors and the stages of change that can be expanded upon in future studies. The qualitative methodology used in the creating this project yielded important contextual information that would have otherwise been overlooked in a quantitative study. Finally, no previous research has been conducted with the Filipino community in Atlanta, Georgia. Therefore, this paper may provide the first glimpse of the Filipino experience in this region of the United States.

Limitations

The small sample size associated with this study limited the amount of information that could be used to corroborate the perceptions of other men in the study population. Saturation was not reached at the end of data collection thus important information could have been missed. Additionally, without more participants in the study, it is uncertain if the data collected portrays an accurate representation of the Filipino experience in regard to identity, eating habits, and health perceptions of Filipino men in Atlanta. Moreover, the perceptions of Filipino women were collected but not included in this study. Important information from this perspective would

have provided more depth and context to this discussion. Furthermore, acculturation, self-efficacy, eating habits, and the healthy-eater identity of the Filipino men were all based on the participant's self-perception. In a future study, all four components should be accurately measured using standardized data collection tools in order to provide a more objective lens to this study. Finally, causality cannot be determined due to the qualitative nature of this study and the findings of this paper should not be generalized to all Filipinos living in Atlanta.

Conclusion

In this study, healthy-eaters possessed the necessary motivation, ability, and self-efficacy to overcome these barriers. Within the Transtheoretical model, these individuals would be placed in the action and maintenance phases. However, the challenge is to find ways to move non-healthy Filipino Americans from their residence in the pre-contemplation and contemplation phases to these latter stages. This involves addressing the personal, behavioral, and environmental factors that influence dietary behavior change. Given that the majority of participants were healthy-eaters, this study has provided public health researchers with foundational and culturally relevant information on how to potentially tailor a dietary intervention with Filipino Americans. Future studies can utilize these findings to create a health education campaign, focused on targeting Filipinos in the pre-contemplation or contemplation phases of dietary behavior change. This potential intervention could address multiple different personal, behavioral, and environmental factors Filipinos in Atlanta may potentially face. These include increasing awareness of the perceived risk of unhealthy eating habits, improving their level of knowledge on common healthy eating practices, increasing their ability to prepare healthier versions of traditional Filipino food, and potentially addressing issues related to access

of healthy vegetables. Overall, this study provides the first steps towards addressing the growing burden of chronic disease in Filipino Americans in Atlanta, Georgia.

Appendix A: In-Depth Interview Guide

Research Question: How does acculturation shape the eating habits and attitudes toward chronic diseases for Filipino Americans living in Atlanta, Georgia?

Introductory Statement

Thank you all for taking time out of your day to be here. My name is Alan Bienvenida and I am a graduate student at Emory University majoring in global health with a concentration in community health and development.

Today, we will be talking about your eating habits and thoughts on chronic disease and how being Filipino affects these things. This will involve talking about your experience living in the United States as a Filipino, your dietary patterns and your experiences with chronic disease such as high blood pressure, diabetes, and obesity. Your responses during this interview will provide us with important information about Filipino health in Atlanta. We understand that your attitudes and experiences may be complex and sometimes personal, but we encourage you to share because your opinions are very valuable to us. We are here to learn from you.

I want to remind you that your participation in this study is completely voluntary and you can choose to skip a question or stop the interview if you feel the need.

What you say is really important to me! I will be recording our discussion today so that I do not miss anything. Do not worry as our discussion will remain completely confidential. The information gathered in this recording will only be used for this research project and it will be securely stored so that it is not accessible to anyone besides me.

Are you okay with having this interview recorded? Please circle: Yes No

I estimate that our interview will last about an hour and a half. Do you have any questions before we start?

Introduction

1. How would you prioritize these 5 items?
    a. Having enough money 5
    b. Being close to God 1
    c. Being Healthy 3
    d. Making and keeping good friends 4
    e. Being happy with my family 2

    Probe: May be a hard question but encourage them to answer.

    - Showcases how they prioritize health among other things

Acculturation

First, I want to talk about your experiences being Filipino and living in Atlanta.

1. When someone asks you where you are from, what do you usually say?
    a. Probe:
        - Does this coincide with your perceived cultural identity? Do you identify more with one more than the other?

2. In your opinion, do Filipino Americans have different attitudes towards health than non-Filipinos?
    a. Probe:
        - Can you give me some examples?
        - Does it differ between Filipino's living in the United States versus Filipino's in the Philippines?

3. In your opinion, in what way is food related to your identity as a Filipino.
    a. Probe:
        - Do you eat more American or Filipino foods?

Eating Practices

4. Please describe what your family typically eats for breakfast, lunch, and dinner?
    - Does your diet differ on weekdays vs. weekends?
    - Do you eat mostly American foods vs. Filipino foods?

5. How are your family's "favorite" foods prepared and served?
    - Probe:
        - What are some ingredients that must be included in or with your food?
            - Looking for patis, suka, bagaoong. (Traditional Filipino Condiments) or other food enhancers depending on type of diet
                - Type of oil, way it is cooked

6. How would you describe your typical family dining experience?

- Probe
    - Do you eat together or separately?
    - Are there rules that Filipino Americans typically follow?
        - Eating everything on your plate, multiple servings?
        - How is your plate arranged? Mostly rice, meat, or vegetables? Equal amounts or not?

Health Perceptions

7. When I say "eating healthy" what comes to mind for you?
    - Probe:
        - **IF** they say, eat more vegetables, respond with, what does eating "more fruits and vegetables mean to you? How much more?
        - **IF** they say, eat less fat, respond with, what does eating "less fat" mean to you? How much less?

Barriers to Healthy Eating

8. What are some of the things that keep you from eating healthy?
    - Probe
        - Probe for both internal barriers (feelings, beliefs, personal traits, time) AND external barriers (influence of family, children, friends, time)

Motivators to Healthy Eating

9. What are some of the things that have or could HELP you make changes in your eating habits?
    - Probe
        - Probe for both internal facilitators (feelings, beliefs, personal traits) AND external facilitators (influence of family, children, friends)
        - What about your community?

10. What are some things your community could do that would be helpful?
    - Probe
        - Provide examples if needed (school, work, neighborhood..etc)

Perceptions of Chronic Disease

11. How does diet affect the health of Filipino Americans?
    - Probe
        - Ask questions that will foster discussion about specific health issues such as diabetes, high blood pressure, cancer…etc
        - Probe for differences between Filipinos in the United States versus Filipinos in the Philippines

12. Chronic diseases are diseases or conditions that persist for a long period of time or are constantly reoccurring. These include hypertension, diabetes, cardiovascular disease…etc How susceptible are Filipino Americans to chronic disease?
    - Probe
        - Do you have personal experience combating a chronic disease?

13. ? In what ways can Filipino Americans prevent chronic disease?
    Probe: If no, why not? If yes, how?

Closing Questions

14. Is there anything else that you would like me to know about your opinions on healthy eating and chronic disease?

Thank you for your contributions today. My colleagues and I appreciate your willingness to share and your patience this past hour. I know this conversation may have been taxing but I assure you that the information we received from you is of utmost value to us. If you have any questions, please feel free to contact me after the interview. If you would also like to learn more about the study after it is finish, please let me know. Thank you again and have a wonderful day!

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