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An Ethnobotanical Comparison of Three Generations of Taiwanese and Chinese Immigrants

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Abstract

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Immigrant studies are very important to public health to better integrate cultural competency into biomedical practices. It is important to not only compare and contrast between two ethnicities, which in this case would be the Taiwanese and Chinese, but also generational differences. This thesis explores how social and political events can shape individual immigrants' beliefs in health perspectives and national identities. By breaking the 120 interviewees into six groups based on their ethnicity and decade when they immigrated to the United States, I show statistical differences in Western or Chinese medicine preference, belief in yin and yang, and future perspectives of Chinese and Western medicine. I also address differences in medicinal food preference across generations. Globalization has taken away certain traditions in Chinese medicine but it has also taken salient parts and reshaped them to fit what is popular in global public health. Understanding how three generations within two ethnic groups is crucial to understanding future trends in preserving and studying Traditional Chinese Medicine.

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Introduction

Project Origination

My mother and father came from Singapore and Taiwan and thus, all my life, I've always been exposed to both Western and traditional Chinese medicinal influences. I say Western medicine throughout this paper in comparison with biomedicine because Western medicine includes rituals and even the taking of supplements and vitamins which is a foreign concept to Chinese medicine. Biomedicine means the clinical and scientific medicine part stripped of any CAM that comes with Western medicine. I remembered when I was little my mother would stew pear soup with brown sugar for my sore throat, feed me red date ginger chicken soup as a tonic to warm up my body, and put garlic into every dish she made because it was good for the immune system. My dad would feed me black sesame seeds to ensure I grow up with nice healthy black hair, ate almost everything raw, and ate goji berries over raisins. I had grown up eating medicinal foods all my life without realizing it. I was aware that my peers did not share the same remedies as I did, but I never thought more of it other than the fact that it was a cultural difference and that Western medicine was probably enough to alleviate their ailments too.

All my life, the terms heaty and cooling have been a governing force as to how I live. There is no system to measure this "chi" that many other Chinese people believe in, but this "chi" system is effective to my family. When I took medical anthropology, I was able to explain this better. Every medicinal system has its own etiology or diagnosis, treatment, and symptom system. When I had

colds, for example, my pediatrician, a dear man named Dr. Pitts, would treat me based on my symptoms. If I presented XYZ symptoms, I probably had bronchitis. Whereas, to the exact same XYZ symptoms, usually sniffles and a sore throat, my mom would say I was too heaty and needed a cooling treatment to balance my system.

As I grew older, especially in college when I was away from the immediate home remedies, I became interested in differences between Western and CAM therapies. I was interested in becoming a doctor but realized what I may consider as great effective remedies were not welcomed in some scientific settings. As I shadowed my family doctor who specialized in both Western and Eastern medicine, I became very interested in studying traditional medicine and its future in the biomedical setting. I often read articles talking about some new Chinese herb they were just now realizing was great for anti-cancer properties that I had known since I was 5. To me, if only all medicinal systems could teach each other their secrets, think how little illness we would have in this world!

While my peers may have thought my pear soup as folksy and scientific articles can deem Chinese concoctions as quackery, I have had faith in these remedies all my life. I am confident that a system like Chinese medicine that has existed for 2000 years cannot be entirely wrong as well as Ayurvedic, Kampo, and other medicinal systems. To me, science itself is a Western construct. Some things cannot be proven with Western methods because those methods do not exist in other systems. Is placebo wrong? To me, even if my pear soup did nothing for my throat, was it wrong that I continued the treatment even if it did alleviate my symptoms? Perhaps there are tests out there that can measure Chinese medicinal efficacy that we have not discovered yet.

Combining my interests in medicinal foods, my background with heaty and cooling chis, and my growing interests in medical anthropology, this thesis was formed. It started out as a mini summer pilot project that became a publication in the Journal of Ethnobiology and Ethnomedicine(49). This project focuses on specific ailments most common to the Chinese and Taiwanese communities and known medicinal foods that can remedy them. It compares the two populations laterally as well as vertically within each ethnic groups' age differences. Growing up, I was immersed in both my father's Taiwanese social circle but attended a Chinese school. I differentiate Taiwan and China here, because the cultures are very different even though the underlying influences are the same. Taiwan's culture has many cosmopolitan influences such as Japanese and American touches to traditional Chinese medicine. The indie-hipster culture is popular in Taiwan where small European coffee styles with Japanese tastes have sprung up all over the nation within small American style homes once occupied by stationed soldiers. Whereas China's culture is traditional, very much retaining ancient cultures with little influences from the outside. I was aware that there were differences between the two groups, and even to this day I note differences in dress, food, language, and habits between them. Thus, I chose to compare the two groups to further understand their health habit similarities and differences. This study, I hope, has helped me understand two cultures, 120 individuals, and 1 healthcare future that they are all a part of and that I hope to transmit to you. Most importantly, I will discuss Chinese and Taiwanese perspectives and preferences in health habits such as belief in yin and yang chis, preference of Western vs. TCM, and views on the future of Chinese medicine.

Questions

Once I narrowed my focus on what groups of people and place I wanted to study, I had a lot of questions I wanted to answer. While this honors thesis will cover the main topics in traditional medicine usage in Atlanta, there are still many questions that remain unanswered. Like any interesting topic and ethnography, one question generates answers that lead to more questions and the snowball effect takes place. I often had to put down questions in a word document and choose what was salient to my topic even though those other topics were also very interesting. I could revisit them later, but for now, I have chosen to focus on 1) How do Chinese and Taiwanese Immigrants use Traditional Chinese Medicine in Atlanta and 2) how do these beliefs and behaviors change over a course of 3 immigration waves.

Definitions

Western medicine: medicine practiced specifically by holders of M.D (medical doctor) and D.O (doctor of osteopathy) degrees and by allied health professionals such as nurses and psychologists. Usually also known as allopathic, biomedicine, conventional medicine

Traditional Chinese Medicine (TCM)- also known as oriental medicine or medicine that originated from old Chinese times. It includes various practices ranging from herbal therapy, acupuncture, food therapy, and balance of the chi system

Complementary and Alternative Medicine (CAM)- Medicine that is not biomedicine that are usually less invasive and include massage therapy, chiropractic, meditation, diet, and TCM

Literature Review

Traditional Medicinal Systems

Traditional medicinal systems are very important to every ethnicity as they encompass not only the wellness of the people but also the culture. With the globalization and spread of Western medicine, it has become crucial to preserve and understand these local knowledge systems in order to not only better study them but also improve biomedicine and cultural competency. With an increase in immigrant in the United States, allopathic professionals recognize a need to understand different patient etiologies and backgrounds; every patient has his or her own disease experience and thus require personalized cultural understanding.

Oftentimes, in various cultures, there exists a medical pluralistic system in which individuals use more than one medicinal system for wellness and health. That is, individuals may seek more than one system depending on the illness or use different aspects of each to create their own disease treatment. Medicinal systems are not mutually exclusive, and with the advent of globalization, people recognize different options and pick and choose salient and pertinent parts of various systems to treat their own illnesses. For example, in China and Taiwan, biomedicine and traditional Chinese medicine are both used by people for different illnesses.

Medical pluralism is important to health care policies because different medical systems have different views on etiology, pathogenesis, and nosology. To say that a group of individuals simply blend medical systems into their own disease treatment is an oversimplified view, as medical pluralism is complex involving cultural, sociopolitical, individualistic background. It is important to study various medical systems' tenets, as treatments can interfere with one another. Patient disclosure to physicians is necessary if they are using more than one medicinal system, so that health care professionals can understand and choose best treatment options.

Thus, most individuals especially immigrants use medical pluralistic options to treat their illnesses, and it is important that healthcare professionals are trained in cultural competency to best care for their patients.

Medical pluralism is an important field to study in Taiwan and China, but it is even more important to study immigrant health in countries such as the United States. Being in a new environment where the predominant medicinal system is not the same as their home country, brings about different perspectives and versions of medical pluralism compared to their counterparts in Taiwan and China. Traditional Chinese medicine and biomedicine are the two most commonly used medicinal systems by Chinese immigrants, and it is important to understand each system and how immigrants are using both in their healthcare choices. I will talk about medical pluralism in a literature context, but it must be noted that my findings point to a hybridity rather than pluralism. The Chinese and Taiwanese have created a new system for themselves using Western medicine for acute diseases and Chinese medicine for chronic disorders. However, the Chinese are remaking traditional medicine through interactions with global forces. Indeed, although the Chinese have quickly adapted and integrated in Western medicine, tradition is not cast aside but rather, salient parts are kept that can fit a current modern form of wellness for the Chinese population.

Traditional Medicinal Systems

Many ethnic populations in the United States heavily rely on herbal medicines. This has led to a growing interest in these traditional practices of health care as a complement to biomedicine [2-3]. Traditional herbal medicines include “naturally occurring, plant derived substances with minimal or no industrial processing that have been used to treat illness within local or regional healing

practices” [4]. Ethnobotanical studies especially those involving intercultural health practices amongst migrant populations are important because they can contribute to an emerging landscape of public health knowledge concerning immigrants in the U.S. This knowledge can thus assist in informing health policy makers to not only better improve integration but also access to biomedical services for these minority populations[5]. While many medical ethnobotanical studies have been dedicated to migrant health strategies in Europe [see e.g., 6-19], relatively few have been dedicated to such studies of migrant populations in the US [see e.g., 20-27]. Traditional Chinese medicine (TCM) is gaining acceptance as a major form of complementary and alternative medicine in the U.S., but there are relatively few studies that seek to understand and document that use of medicinal foods by Chinese immigrants [28].

With almost 80% of the world relying on traditional medicinal systems, it can be said that they are very important [29]. The World Health Organization (WHO) defines traditional medicine (TM) as “the sum total of knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures that are used to maintain health, as well as to prevent, diagnose, improve or treat physical and mental illnesses” and when adopted by other populations (outside its indigenous culture), TM is often termed CAM [29]. With such a high percentage of the world relying heavily on TM, it is becoming critically important to economically developed nations that people migrate to, to understand and study these systems. Immigrants bring with them a great diversity in health beliefs and strategies that are often different from the biomedical model often employed. With such diverse practices being introduced, many allopathic practitioners are often lacking in the appropriate cultural competency training required for

the successful engagement with these health modalities used by migrant populations. However diverse these systems' medicinal structures are, they share one central facet: the importance on the relationship between diet and health. Specifically, many plants are purposefully incorporated into the diet as a health strategy for the prevention and treatment of various medical conditions. Indeed, many indigenous and even modern societies starting from thousands of years ago to now, still continue to use these medicinal foods for these purposes (30).

Traditional Chinese Medicine and Biomedicine

TCM originated in ancient China more than 5,000 years ago and includes the use of herbs, acupuncture, and other methods, all aiming to promote the balance and harmony of the human body [31-32]. It is a system that consists of clinical and theoretical investigation of the physiology and pathology of organs and functions, basing its practice on holism, differentiation, yin/yang, and the five elements (33). It follows the original Gallenic humoral medicinal system of balancing and maintaining homeostasis with the idea of energy balance in the body. TCM follows the concept of holism, which considers the individual person as being comprised and subjected to the elements and forces of nature, while considering the individual as a unified "whole" comprised of mind, body, and spirit (33). Thus, the TCM physician would consider the physical, mental, and emotional state of the patient as well as the climate, environment, diet, and daily activities. The goal is to not only address the disorder or illness, but also to balance and tonify all physiologic functions so that the individual's whole functioning is supported(33). The first documented source of Chinese medical

theory, *Huandi Nei Jing*, describes the diagnosis and treatment of a huge range of disorders, gives advice about healthy lifestyles, and also accurate dietary advice on how to avoid micronutrient deficiency diseases such as beri beri, xerophthalmia, and goiter (34).

Moreover, there has been an increase in numbers of researchers who are focusing their attention on developing drugs from traditional Chinese herbs by identifying the active compounds and determining their pharmacological mechanism of action (36-37). It is important to note that TCM and Western medicine, like all different medicinal systems have different viewpoints about etiology and pathology and thus diagnostic methodologies (38). In biomedicine, a disease is thought to result from one or more pathogenic factors whereas TCM acknowledges that disease is a common product of both pathogenic and maladjustment factors in the body. TCM focuses more on the body's response to the pathogenic factor rather than the pathological mechanisms. Nesse's theory states that systems of a disease are protective reactions to outside stimulants (39). Thus, a response to pathogenic factors reflects the self regulatory state of the body. For example, cold dissipating herbal agents promote thermogenesis, dilate constricted superficial blood vessels, and excite the hypothalamus- pituitary adrenal axis (41). This increase in warmth helps the body stimulate the defense system as dilating blood vessels and sweating can increase heat loss to keep the body's temperature balanced. The herbs do not inhibit the pathogens, but its efficacy comes from the fact that it improves the self healing mechanisms of the body. Drugs are not to be designed to replace or interfere with the self healing process of the body. In TCM, drugs are used to either improve the body's regulatory mechanisms or remove factors that impair the self healing ability of the body (40). During an examination, a practitioner will not only ask for symptoms but also examine the tongue, palpates their pulse, and observes any distinguishable features such as smell, coloring,

voice, posture, or skin. This information collected will be arranged to form a specific diagnosis based on a causal pattern and thus determines the specific formula derived from traditional formulas (42).

Allopathic medicine and TCM differ in many ways, but one main difference is that allopathic medicine focuses on Cartesian dualism, in which the body and mind are treated separately and most medical procedures target physical diseases rather than mental ones (43). TCM is a more holistic system in which its central teachings revolve around the maintenance of homeostasis. While allopathic physicians may seek to remove the immediate cause of illnesses, TCM practitioners tend to concentrate their efforts on helping the body restore the body homeostasis using only body mechanisms (43). Homeostasis in Chinese medicine exists through the chi system of balancing the heaty (yang) and cooling (yin) chis. The Chinese use food therapy to treat imbalances of chis, as foods themselves contain varying quantities of yin and yang chis. TCM relies on the balance of energies so as to avoid becoming poisonous; this balancing system is not recognized by Western scientific understanding (44-45). The human body consists of blood, body fluids, and chi. Chi is the animating force that gives us our capacity to move, feel, and work. Blood is the material foundation which create our nerves, skin, muscles, and organs and body fluids are the liquid medium that protects, nurtures, and lubricates the tissues (42). Yin and yang in foods are described as “shang huo” or “Jiang huo”, literally meaning increasing or lowering heat. Thus Chinese medicine focuses on balancing a correct diet in order to maintain this balance and remediate any illnesses due to imbalance. Maintaining a healthy balance of the two energies is essential to promoting good health, and thus Chinese medicine relies on a medicinal food system.

Chinese disease etiology is very different from Western medicine as it sees the root of ill health as being due to energy imbalance. It is able to provide different explanations and causes of problems that are beyond that of Western medicine (46). Western medicine treats to the symptom instead of the cause of the problem. Chinese medicine treats long term chronic symptoms well because it is a cognitively satisfying explanatory model of long term energy imbalance, and thus Chinese medicine is popular for treating chronic illnesses that Western medicine falls short of (46). Most Chinese immigrants and citizens have chosen to merge both Chinese and Western medicinal models today because the dietary rules fill empty explanatory and behavioral niches left behind in Western medicine. It is popular for preventative medicine because it alleviates minor symptoms and discomforts that are not clinically recognizable in Western medicine (46). That is, Chinese medicine seeks to stop serious implications of illnesses before they arise, balancing this is a less expensive and self controlling process anyone can handle before they turn their health over to another professional (46). Certainly, most Chinese could agree that in terms of treating disease, dietary methods are not as effective as seeing a practitioner. Antibiotics and surgery are used as urgent prescriptions for diseases that are considered too serious or urgent to treat with dietary methods (46). Thus, Chinese people blend Western and Chinese medicine into a new hybrid. Arguably, one could say that this is a system of medical pluralism as the patients seek both systems in their treatment for their own personal diseases, but it must be noted that the same pattern arises to where it is not simply an individualistic preference but rather a cultural phenomenon. Chinese people use diet to treat self controllable illnesses but would not hesitate to use Western medicine for serious or urgent ailments. Western and Chinese medicine in this study seems to have fused together into a system that most people would resort to. Also, note

that diet seems to be the only part of traditional medicine that has stayed compared to older traditional techniques. Tradition is not case aside in favor of global models of health and healing, but rather is remade and reshaped through interaction with global forces.

Medicinal Foods

Foods, medicines, and poisons are not mutually exclusive entities but rather fall on a circular continuum. Thus, since it is difficult to draw strict divisions between these three groups, the categorization of edible plants often fall somewhere in the middle of all three. Foods taken in appropriate quantities would fall between food and medicine and thus are termed medicinal foods. However, if there is an overconsumption of certain plants, they can become poisonous. Some plants are indeed placed into strictly food or medicine categories, but oftentimes many are placed into the intermediate category of either a functional food or medicinal food. The difference between these two groups is that while functional foods are purposely incorporated into the diet for general health benefit (i.e. cited as being “healthy”, “good for blood”, or “depurative”), medicinal foods are eaten to fulfil a very specific medicinal role (i.e. for treatment and management of chronic diseases such as hypertension, gout, diabetes) (47-48). TCM has a medicinal food section that follows the chi system. Oftentimes, the line between a poisonous and medicinal dose is fine, and thus plants must be processed and detoxified prior to ingestion. TCM uses this concept with respect to the yin and yang chi system, addressing that too much of one chi becomes poisonous. Thus, a major goal of TCM is to maintain a balance between the two opposing energy entities.

Chinese dishes are often prepared with the idea of balancing the chis, unless a specific chi is targeted. For example, if one presents symptoms of heatiness which include sores, pimples, sore throat, phlegm, fever, constipation, and dry skin, they would take cooling foods to neutralize the system. Foods have different degrees of heat and cold rather than a dichotomy; most foods fall on a spectrum that range from very heaty to very cooling (46). This is exemplified in very fried oily foods such as chips and baked goods which are considered very heaty. People who consume much of this will have the heaty symptoms. They must balance with watery, plain, and cooling foods such as vegetables, cool drinks, and teas (46). Cool chi poisoning presents symptoms such as diarrhea, coldness, palor, poor circulation, and fatigue and must be counter balanced with heaty foods (46). Hot and cold chis are also tied in with individual metabolisms and even climate. For example, during the summer, people would term dry hot weather is heaty weather and those people who catch colds have the “hot poison” type which cause fever, sweating, phlegm, and cough. To prevent or remedy such heaty problems, foods with cool chis such as mung beans, watercress, bitter melon, white fungus, and cooling fruits were advocated (46). In contrast, in the winter, colds would be characterized by numbness, cold extremities, and shivering, and to counter this “cold poisoning” symptoms, warming foods such as wine, ginger, onions, and red dates would be advocated (46).

Chinese medicinal foods are often incorporated into daily meal consumption with the most common being garlic and ginger slivers found in stir fried vegetables, main dishes, and soups. In Atlanta, the most commonly cited medicinal foods listed in order were *Allium sativum* (used for immune enhancer and treatment of the first signs of cold/viral infections), *Zingiber officinale* (febrifuge), *Ziziphus jujube* (improving circulation), *Lycium chinense* (eyes, complexion, vitamin A), *Sesamum indicum* (improve skin complexion

and tonic for blood), *Vigna radiate* (cold/flu remedy, removing toxins), and *Ipomoea batatas* (removing toxins) (47). These medicinal foods were often taken as tonics to treat specific poisonings. For example, mung beans were the most commonly cited to rid toxins in the summer. Participants made sweet cooling desserts of mung beans to combat the heaty poisonous summer weather to prevent heaty colds. Some informants have mentioned that even in the winter if their family members were consuming too much fried foods and presenting symptoms of sore throat and heat, rather than seeing the doctor, they would use dietary preventative methods to first prevent the illness from escalating into something serious (46,49). Once more, note that dietary methods are not the only part of Chinese medicine that exists, but rather it is the most salient point that people have chosen to preserve from Chinese medicine. Perhaps this is because the Western world is also shifting towards chronic illness cures and therefore, China and Taiwan as they also become developed nations recognize same illness patterns and seek similar treatments. The health “diet medicine” that has arisen in China certainly reflects that medicinal foods are very important in maintaining culture and identity while allowing Chinese to blend and share ideas with global forces.

Methods

Institutional review board (IRB) approval was obtained prior to initiating the study (Emory IRB 00057325). Prior informed consent was obtained prior to all interviews and we adhered to the ethical standards of International Society of Ethnobotany [69]. Participants were recruited using a mixture of snowball sampling methods [70-71] and random sampling. Semi structured interviews were conducted using a set of 20 questions concerning medicinal food and health strategies, perspectives of Chinese medicinal culture,

and personal data were conducted in either English or Chinese, depending on individual preference. Participants were questioned about their: 1) knowledge and use of medicinal plants (including parts, efficacies, preparations); 2) preference for Western or TCM; 3) belief of yin and yang; 4) health strategies for blood, bone, and chronic diseases; 5) perspectives on the history of Chinese medicine and its culture; and 6) future of Chinese medicine. Participants were also asked about the source of any plants used, freshness and quality, as well as substitutions when the traditional Chinese ingredients were not available. Whenever possible, participants were asked to point out live specimens (especially for those that actively maintained gardens) and voucher specimens were collected for deposit in the Emory University Herbarium (GEO). In all other cases, pictures were used to verify the identity of commonly cited species. In addition to sampling from home gardens, trips were also made to Asian grocery stores and ethnic markets, where certain species were commonly acquired. Plant nomenclature follows the The Plant List database [[The Plant List Database](#)] and Angiosperm Phylogeny Group III system [[Stevens PF](#)]. Chinese names cited by participants were verified ll

Study Site

The study site encompassed the Northeastern Atlanta metro area with all interviews coming from Gwinnett, Fulton, Cobb, and Dekalb County (Table 2). These counties were chosen for their large Asian populations, in particular Gwinnett County which has over 86,000 Asians. Fulton and Gwinnett Counties had the most Chinese people with many of them clustering near the Pleasant Hill Road area in Duluth and the Johns Creek region near Alpharetta. These regions also are also known for their good school quality, with most of the top Georgia schools such as Northview, Parkview, Brookwood, and Chattahoochee High Schools.

The study sites took place mostly in the Great Wall Supermarket in Duluth, the Chinese School in Perimeter Church in Alpharetta, Chinese School in Emory University, China Town in Doraville, and some private homes to collect specimens or observe some cooking techniques. These places were chosen because all Chinese and Taiwanese frequent these areas. That is, Great Wall Supermarket and Chinatown are the top two places that Chinese groceries would be bought at. The Chinese schools in Alpharetta and Emory University are where almost every Chinese parent sends their children to study the Chinese language on the weekends. The Taiwanese send their children to the Taiwanese Cultural Center in Doraville and spend their waiting hours in the Chinatown adjacent to the center. Thus, the Chinese population was pretty well represented since all Chinese and Taiwanese people, regardless of where they reside must go to these locations sometime.

Table 2. Study population demographics.

	Georgia	Cobb County, GA	Dekalb County, GA	Fulton County, GA	Gwinnett County, GA
Total Asian	320,905	31,164	37,095	52,213	86,957
Chinese (except Taiwanese)	44,604	4,961	5,767	10,025	10,624
Taiwanese	3,483	378	525	959	886



Figure 1. Study site of the interviews were in NE region of Atlanta, Georgia, encompassing Gwinnett, Fulton, Cobb, and DeKalb Counties.

Data Analysis

All data were input into a master excel sheet for statistical analysis. The Fisher's approximation test was used to find statistically significant differences in 7 points of interest: belief of yin yang, preference for Chinese or Western medicine, Future of Chinese

medicine, belief of yin and yang for blood problems, preference for Western or Chinese medicine for blood problems, belief of yin or yang for bone problems, and preference for Western or Chinese medicine for bone problems. Statistical significance was defined at a p value of <0.05 . Consensus indices are reported in Table 4 as a percent of total citations for each group of 20 participants.

Background- Why are there 3 Immigration Groups?

Chinese History and Immigration Dates

Mainland Chinese had arrived in the US a whole century before the Taiwanese starting with the famous gold rush “coolie” workers. Most of these immigrants came from the Guangdong Province, but received a backlash of anti- Chinese sentiment due to competition for jobs. Discriminatory laws such as exclusion acts against the Chinese in 1882 denied them the right of entry into the U.S based on race and ethnicity. It was not until the U.S. defeated Japan during WWII, when the U.S. and Taiwanese became allies, was there efforts to remove these exclusion acts. President Lyndon Johnson signed the Hart Celler Act in 1965 which allowed an annual quota of 20,000 Chinese, as well as the entry of family members as non- quota immigrants. Since then, there are more than 3.5 million Chinese currently in the United States. Chinese immigration history and anthropology during the time between 1960 to present times is a fascinating and dynamic time with many stories that combine frustration, hard work, and pride.

Taiwanese

It was not until the Hart Celler Act in 1965 did the Taiwanese truly began to migrate in the United States. Most of the 20,000 cap imposed on this act on Chinese nationals comprised of Hong Kong and Taiwanese immigrants. Of those immigrants, most of them were students continuing their education in American universities along the Eastern and Western Coasts and certain Midwest places such as Chicago and even Kansas. These numbers were low and most of these graduates stayed on to find successful business or science careers in the United States. Another group comprised of immigrants seeking better economic opportunities and conditions than they could find at home. These individuals ended up in Chinese restaurants or in service industries. However the Taiwanese in this era felt isolated in both the universities and service sectors from the general Chinese American population by cultural tradition and by language. Cantonese was the main language among these Chinese immigrants during this time as opposed to the Taiwanese or Mandarin spoken by immigrants from Taiwan.

After the 1965 Immigration Act, more Taiwanese came into the U.S, aided by new legislation that favored those with technical and scientific skills. This second wave of immigration lasted between 1965-1979, until the United States resumed diplomatic ties with China. The Taiwanese faced a difficult time as they held passports from a “nonexistent nation.” In 1979, the Taiwanese relations act was passed and this increased the number of Taiwanese because the United States recognized Taiwan and China as two different nations in terms of immigration. In 1982, Taiwan was granted a quota of 20,000 immigrants, of which mostly comprised of students or trained professionals for whom there were insufficient jobs in Taiwan. This led to a “brain drain” in Taiwan, as students who did

migrate to the U.S to study, stayed in the U.S to continue their careers. Moreover, many young men were escaping the mandatory military service in Taiwan.

Taiwan joined the Asian Tiger Boom in the late 1980's, an era where nations such as Singapore and Hong Kong became power houses for electronics and economic promise. Since then, the Immigration Act of 1990 established preferences for Taiwanese willing to invest in new businesses in the U.S. Thus there are many Taiwanese small business owners in New York City, Boston, San Francisco, Los Angeles, and Atlanta. Like other immigrant groups, the Taiwanese like to settle in areas with large numbers of their fellow countrymen. Taiwanese American communities tend to remain cohesive, and tend not to congregate in old Chinatowns. Younger Taiwanese generations tend to be looser in terms of assimilating American values, language, and traditions while preserving much of the mutual aid that characterizes the Taiwanese communities they grew up with back in Taiwan.

Thus, Taiwanese and Chinese immigrants have had unique immigration experiences throughout American history. They have been separated socially, politically, and culturally since the earliest migrants arrived in the United States and this has affected the two different cultures' views on Western and traditional culture as well as differences within each ethnic groups' generational groups. Historical events such as the Tiananmen Square, Asian Tiger Boom, and American ties have greatly influenced Chinese and Taiwanese identities with their ethnicity as both Americans or Chinese/Taiwanese. This in turn influences their views on Western and Chinese medicine and explains the differences between the two groups' views laterally and vertically.

Date	Chinese	Taiwanese
1965		<p>Immigration and Nationality Act- rejects “national origins” as a basis for distributing immigration quotas- 20,000 new quota per country- surge in Taiwanese</p>
1979	<p>Long-separated Chinese American family members reunite as the People’s Republic of China and the United States resume diplomatic dialogues.</p>	<p>Taiwanese Relations Act- gives Taiwan a separate immigration quota from mainland China, resulting in greater numbers of Taiwanese immigrants to the United States.</p>
1989	<p>Tiananmen Square Protests- President George H.W. Bush issues an executive order that permits mainland Chinese scholars,</p>	

	students, and their families to permanently stay in the United States.	
1990	<p>1990 immigration Act- increases the total immigration to the United States to 700,000 per annum and increases visas by 40 percent</p> <p>Population: 1,645,472</p>	
1992	<p>The Chinese Student Protection Act (CSPA Act) grants permanent resident status to nationals of the People's Republic of China who were in the United States after June 4, 1989 and before April 11, 1990.</p> <p>This Act gains passage partly as a reaction to the Tiananmen Square incident of 1989.</p>	
2000	Population: 2,879,636	

Table 1. Timeline history of Taiwanese and Chinese immigration from 1950-present.**Demographic of Interviewees**

A total of 120 participants ranging from the age 22 to 65 were interviewed, with the average age of Taiwanese participants at 49.9 years and the average age of Chinese participants being 49. Half of the 120 participants identified themselves as being Taiwanese and the other half identified themselves as mainland Chinese. Each ethnic group was further split into 3 groups based on the time era of the immigration to the United States: before 1980's, 1980-1990, and beyond 1990. Thus, in total, six groups existed within the 120 participants: Taiwanese immigrants who came before 1980s, Taiwanese immigrants during 1980s, Taiwanese immigrants after 1990s, Chinese immigrants before 1980's, Chinese immigrants during the 1980's, Chinese immigrants after the 1990's. There were exactly 20 participants per small group. The average age immigrated, average year born, and average year immigrated to the U.S can be found in Table 1 below.

	<1980s			1980's			>1990's		
	AVG BIR YR	AVG IMM YR	AVG AGE	AVG BIR YR	AVG IMM YR	AVG AGE	AVG BIR YR	AVG IMM YR	AVG AGE
Chinese	1953.7	1976.55	22.85	1961.6	1985.2	23.6	1976.7	2002.3	25.6
Taiwanese	1953.95	1976	22.05	1960.05	1985.2	25.15	1975.35	2000.55	25.2

Table 3. Average data on each small group.

Ethnographic description

1970's- Business and Economic Prosperity

“The people from my generation (1970's), we were all small business men or had science degree backgrounds... most of us came for economic reasons and opportunity... the scientific ones came because the technology was better here...”

Mr. Edward Sun is a Taiwanese American who came to the U.S in 1977 and is currently the owner of the popular vegan Sunflower Café in Atlanta. Like many other Chinese and Taiwanese from this decade, he speaks English quite fluently with a slight accent. His lifestyle and views are very American, his home, a European bungalow with organic airy furniture, bathrooms full of organic herbal soaps, and a backyard full of homegrown vegetables lined up in an Italian fashion. You would never guess the owner of the home was Chinese. While not all Taiwanese and Chinese immigrants during this period are as cosmopolitan in their tastes as Edward, I would say they were decidedly more likely to have Western tastes.

For the Taiwanese, their traditions have always been a unique blend of the groups that occupied the island state throughout history. Many of the Chinese or Taiwanese people who came to the US in their early twenties came for education, the majority receiving degrees in business or coming already with advanced science degrees. Most of the ones who received business degrees were

Taiwanese, and stayed in the US to open successful small businesses. The other group who came during this time also those with graduate degrees in science, many of them being Chinese. In terms of differences in culture one Chinese participant said,

“The Taiwanese were exposed to Western influences longer than we are, so you may find that later Chinese generations are more into Beatles and other Western pop culture compared to the earlier Taiwanese... but for us, we had a later start, and thus you may find the Chinese scientific community a bit more conservative in our views...”

However different their Western culture preferences were, I found this group one of the easiest groups to interview, because as one person explained to me, “the ones who come later in the 2000’s may be impatient because they are not used to these types of studies.” In terms of Chinese medicinal usage, many from both Taiwanese and Chinese groups still believed in TCM. Many have forgotten remedies due to a shortage of Chinese grocery stores during the 1970’s and a lack of TCM physicians, but many attest that they still believed in and used TCM dietary modifications in their everyday diets. In summary, I would say this group was a calm and collected group of business owners or scientists who had very acculturated views and customs but were comfortable or believed in TCM. The reasons why they didn’t use or choose TCM as a preferential health system was because of the lack or shortage of physicians and Chinese groceries during this period as well as assimilation to abundant biomedical resources.

1980s: The Lost Generation of Scientists

“Those of us who came in the 1980’s were all scientists... I think the ones from Taiwan had more business minded people, but from China we were all here with Ph.D’s in chemistry, biology, physics... and we left at a time where the Chinese doctors were in hiding, we didn’t know much about TCM, and so we came here with no knowledge... or trust... or medicinal knowledge...”

The 1980’s was the most fascinating decade of my study to me. I have termed this the “Hole” or the “Lost Generation” because while the Taiwanese and Chinese groups remained quite similar in their views and usage of medicine in the 1970’s, the differences between the two groups couldn’t be more obvious during the 1980’s. The Chinese from this immigration era were skeptical of TCM and had a preference for biomedicine. Note I said biomedicine over Western medicine in this case, because interestingly, although they supported biomedicine, they were still conservative in their own cultural views preferring Chinese food, Chinese arts, etc. The Taiwanese group was into diet, TCM, and natural and organic foods. All participants who said they planted extensive vegetable gardens were Taiwanese and from this and the previous generation. Mr. Edward Sun and Mr. John Liu had up to 20 species each in their home gardens. Many Taiwanese who came in the 1980’s were MBA students who went on to become successful business owners around the U.S. Chinese immigrants were usually graduate school degree candidates in the sciences. One participant said, “Taiwan is an Asian tiger, you know, the big 5 Asian tiger countries? So their students of course would be learning about business and Western social culture to continue that!”

The Taiwanese participants were an affable community, patiently answering my questions. Like the generation before them, they were happy to go on for as long as 2 hours about my questions and their perspectives. I thought perhaps it was because they were older and had more time to tell their multiple stories, but that was not the case for the Chinese immigrants. While they were a friendly and polite group, many of them seemed skeptical or impatient of my questions. While I recognize now that my questions are not the best formulated queries, the Taiwanese were patient to ask me for elaborations and explain further, while for many of the Chinese from the 80's seemed impatient for the interview to end. Many of them answered my questions in a black or white way and I had to prompt them to list medicinal foods out, whereas the Taiwanese needed no help in listing and telling stories. I felt more nationalism from the Taiwanese group than from the Chinese one, especially when I asked who they thought had more traditional medicinal knowledge: the Taiwanese or the Chinese? The Chinese all said the Taiwanese, and the Taiwanese would assuredly confirm their own nation.

Both groups were pretty acculturated in Western mannerisms and ideas, but the Chinese were more conservative in their traditional views and cultural tastes. They spoke pretty fluent English, but what I noticed was that among both the 1980's and 70's was that the Taiwanese always gave me their English names and the Chinese had no English names for themselves. This may reflect the Western assimilation patterns in the groups. In all, the Taiwanese were a friendly and eager to help group of business owners who were into natural and organic medicine and proud of their Taiwanese nationality. The Chinese were an affable group of scientists who strongly believed in biomedicine but were more traditionally conservative and hesitant or wary in their Western cultural views.

1990's onward: The New Group- Dizzying Change and White Noise

“There’s this like invisible noise among this generation... China’s pace of life is getting faster and faster and the young generation cannot calm itself down. Your heart is always racing, mind is always dizzy adapting to new and change. You wake up the next day, and new things appeared. That’s why we Chinese can be so materialistic to you Americans, but it’s because the tangible is the only thing we can rely on not to disappear tomorrow... the rest are just dust of yesterday... change and change... even the doctors themselves cannot silence their own thoughts and we can’t trust them!”

Zhang Na was my Chinese professor last semester and one of my interviewees. It was she who first showed me the differences between this current generation and the past generations. I had been collecting data from people all over the decades and had begun to feel that they were different, but it was she who articulated or spoke out for the people of 1990's onward. From there, I asked the rest of the 100 interviewees their views on the history and future of Chinese medicine.

Her words were to be echoed by not only the people in this decade, but also reflected upon by older generations. The new immigrants from China from the 1990's onwards grew up in an era where China underwent and is still undergoing economic, technological, and cultural changes that are often dizzying. Many of those who come the U.S for undergraduate education must pay full tuition and are very wealthy, usually studying business. Those who come for graduate programs still remain in doctoral science programs. In fact, most of the people I interviewed from this generation were candidates themselves in Emory University or Georgia Tech.

What is different about this generation compared to the last generation is that they are a more outgoing bunch, speak less fluent English, are very much into traditional Chinese medicine, and more eager to talk about their medicinal practices to me. I split this last generation towards the 1990's, because although the Chinese immigrants who came in the early 1990's were still conservative in their mannerisms, they were already beginning to show differences in their medicinal preferences. Many of them told me that there was a new health craze in China and that many people rely on cyber health blogs for their health and wellness. There are always tips and ideas on the Internet about foods that can help chronic illnesses. For the Chinese, chronic illnesses are the new plague that comes with economic prosperity and thus there is a rush to find remedies to heal diseases such as hypertension, diabetes, stress, and cardiac problems. One of my interviewees termed this as "yao shan," the Chinese may not necessarily be using more traditional Chinese herbs, but are shifting their health model to something similar to the Western one: a wellness model made from medicinal foods and diets. However, like their dizzying culture, these interviewees themselves were often a wound up bunch of energy and information. Talking to them was like winding up a jack in the box, where the answers sprung out all at once often unclear, unorganized, and confused. In essence, they were walking blogs themselves, full of knowledge and trust, but had little experience with the medicinal knowledge themselves.

The Taiwanese group was the same as their previous immigration waves. Many were worked in business sectors and had tried and true medicinal knowledge, often very similar in response to those from past generations. They were friendly and patient, but unlike their Chinese counterparts had a graver disposition towards the future of Chinese medicine. Their answers were always certain

while the Chinese immigrants often doubted their own words. Compared to past generations, more of them had beliefs that the future of Chinese medicine would be replaced by Western medicine and that the two systems cannot blend and exist at the same time. Note that I say Western medicine over biomedicine, because in this thesis, Western medicine is a blurry concept of what is to be in the future and that it may be a blend of biomedicine with other systems.

Thus in this last generation wave, the Taiwanese were a friendly and calm group of business owners who still used a blend of Western and Chinese medicines but doubted that traditional medicine would have much future in the world. The Chinese were an outgoing bunch of scientists who had dizzying and anxious perspectives of not only health perspectives but also about their own sense of personhood, but remained supportive of the future of TCM in China amidst the economic and political changes.

Taken in all, the Taiwanese immigrants did not change much in their career pursuits, medicinal perspectives, and persona. However, they were more likely to say that the future of Chinese medicine would be replaced by Western medicine. In comparison, the Chinese immigrants went through much change in persona and perspectives, but remained the same in career pursuits. They went from a group of pioneering scientists, to scientists advocating for biomedicine and shunning TCM, to now a frantic high strung group of scientists hopeful and questioning about their identities and their future.

Discussion Topic 1: Medicinal Foods

For me, one of the most interesting observations I made on the field was most participants had a problem choosing what medicinal system they follow. The mistake I made was giving them a black and white choice of either Western or traditional medicine, and only one gray entity, “both.” In truth, immigrants used a new pseudo fusion of both entities. When I asked this question, most of them had problems choosing which one, stating that for emergencies they would usually use Western medicines. These were termed “ji bing” which means urgent illnesses. They would use Chinese medicine for more chronic and slow illnesses, which they called “man bing.” What I didn’t realize was that there was a new medicinal system arising in modern China called “yao shan (药膳),” which translates to diet medicine. More and more Chinese people were turning to teas, tinctures, recipes from friends and families using medicinal foods. To them, this wasn’t Chinese medicine, even though certainly, one branch of Chinese medicine involves balancing a diet of yin and yang chis. Chinese medicine, to most, meant bitter herbs, ancient instruments, and slow brewing outdated methods. So, when I asked people which medicinal system they followed, many couldn’t give me a choice between my three choices, because while I, biased from literature review assumed that the TCM choice encompassed all Chinese methods ranging from meditation, balancing chis, diet, and pulse taking, I hadn’t considered the fact that TCM meant something different to Chinese people, especially those in the third immigration generation!

So what are medicinal foods? Food, medicine, and poisons exist on a circular continuum. Some plants are strictly one of the entities, but often times they fall in between the continuum. Functional foods are foods that are consumed on a daily basis for health such as apples to keep your body healthy, whereas medicinal foods are foods taken to target at specific illnesses such as ginger for a fever. Certainly, most plants taken to an excess, or if not processed correctly can quickly cross over to the poisonous side. For example, foxglove, active compound is digitalis, taken at appropriate dosages could treat dropsy, or known to us as myocardial oxygen consumption, but if it is taken even a small bit over the poison

medicine boundary, it becomes lethal. As mentioned, Chinese medicine believes in the balance of yin and yang chis, as an imbalance of one becomes poisonous. To remedy the poison, one usually balanced it with the counter chi through medicinal foods.

Chinese medicine has recently shifted to a more medicinal food system, because most illnesses in modern society are chronic disorders such as hypertension, diabetes, gout, and fatigue. Chinese people recognize the benefits of taking antibiotics for bacterial illnesses and that Chinese medicines are not quick enough to remedy such acute illnesses. However, they also realized, through time, that Western medicine, while excellent for urgent medicine, was still a ways off in treating chronic illnesses. Thus, there became a new resurgence in the interest of Chinese medicine in mainland China after a couple of decades when people reverted back to a system that could solve some illnesses and use the new Western medicine to treat other illnesses. This is the idea of medical pluralism, when two or more medical systems exist together but do not necessarily fuse. Especially in a period when people are busy as China is industrializing at an astonishing rate, few people have the patience to brew the herbs prescribed to them, let alone stomach the traditional bitter dark concoctions. Some pharmaceutical companies have isolated active ingredients and marketed the pills, but most Chinese immigrants, as they said to me, realize that a whole plant is needed rather than just the supposed active compounds. One Chinese participant told me that “taking a pill is useless, because one needs to consume the leaves, the steam, the live plant, and berries; not some dried up mashed up powder! It may be easier, but we know it’s not as good as eating that plant in a soup or tea!” Thus, the medicinal food system arose, with people treating colds with garlic and ginger, drinking almond rose teas for their skin, etc. Recently, in the third immigration block, people rely on blogs all over the internet that exchange and come out with various suggestions, new facts and ideas, and testimonies from the general public to experts. It is what some of my participants have termed “yang shen feng mi (health craze).”

Across the three generations, 1970s, 1980s, and 1990s beyond, I sought to understand the changes in health perspectives and strategies among the immigrants. In this section, I will describe how medicinal food preferences have changed over the course of time. I will also talk about various illnesses and medicinal foods that people cite that can treat these problems as well as differences between generations and ethnicities.

In terms of overall differences between the two ethnicities, Taiwanese tend to link health problems to gastrointestinal problems. For example, if I ask the respondent what foods are beneficial for blood health, Chinese respondents are more likely to list dried herbs for teas and soups, such as red dates, brown sugar, liver, angelica, cinnamon, and green tea. These foods are usually tonics with heaty or cooling chi properties. Taiwanese people are more likely to list functional foods that can be used as digestive aids as well. Taiwanese people were more likely to link blood illnesses with digestion problems. It seemed that constipation was a major reason for many blockages. If your body could not rid itself of fecal matter, then it couldn't get rid of toxins which then cause blood problems. For example, they would list black wood ear, ginger, red bean, red dates, okra, spinach, bittermelons, and raisins. Notice that their answers usually involve fresh produce rather than dried herbs. This could be also because Taiwanese immigrants in this study were more likely to plant vegetable gardens. A vegetable garden for the purpose of this study is anything I defined as being greater than a 5'X5' plot of land with more than 5 species of vegetables. All respondents that had gardens of that size were Taiwanese. In fact, those Taiwanese who had blood disorders tended to plant their own vegetables. For example, John Liu, who has diabetes planted okra of which he took one raw one and split it into four pieces and let it soak in a cup of water over night. The next morning he would drink the slimy concoction which he claimed was great for making his blood sugar levels very even. More research must be done as to why Taiwanese people are more likely to plant gardens. When people ask me if socio economic circumstances restricted land sizes to plant gardens, I did not find this to be the case. The ones who planted gardens were of various economic ranges and had a wide range of occupations ranging from engineers, chefs, and warehouse worker.

According to Table 6b, Taiwanese people always cited more taxa than Chinese people for various illnesses except for treating yin poisoning and menstrual cramps. These two illnesses, it seemed that Chinese people used more taxa. It would make sense that Taiwanese would know more yin medicinal foods to treat yang poisoning as Taiwan is in a more tropical climate and thus residents are more prone to heaty conditions and often need to find yin foods to treat these conditions. Chinese women were more likely to cite menstrual cramp treatments compared to other groups. Whenever I asked a respondent about medicinal foods beneficial for blood problems, Chinese women almost always started with listing foods for menstrual cramps. The most popular foods listed by both groups for menstrual problems were ginger and red dates. Chinese women tended to list brown sugar more than Taiwanese women.

Taiwanese respondents also cited diabetes medicinal foods more frequently. In Table 6b, there were 84 use reports about diabetic medicinal foods compared to the 29 in the Chinese category (consensus index was 0.93 and 0.82 respectively). While the number of taxa were similar, Chinese people were more likely to report having heard of the remedy rather than using them. I found the diabetic and hypertension medicinal foods the most interesting among all the medicinal foods because there were unique foods listed in both groups not found in the other. The Taiwanese were more likely to cite medicinal foods for these two ailments rather than using Western intervention. Chinese immigrants across the generations were more likely to turn to Western medicines, believing that blood disorders were acute enough to use urgent medicine. The unique foods that Taiwanese listed included bittermelon used for diabetes and hypertension, okra for diabetes, sweet potato leaves used for detoxing, and sweet potato for constipation. The Chinese favored the woad root used for preventing colds and general wellness, cinnamon for warmth and blood circulation, and lily bulb used for cooling properties.

The foods most used by all three generations and both nationalities were garlic, ginger, ginseng, mung beans, red beans, red dates, and white wood ear. These foods were usually used for general wellness and were tonics that people felt safe in consuming daily without worrying

about side effects. Some foods that are too heaty or too cooling cannot be consumed on a daily basis such as mangos which are very heaty. Most foods listed in this study are foods that can be safely consumed daily.

Across the generations, the trend for medicinal foods amongst the Taiwanese was steady or a slight rise. For the Chinese, interestingly the numbers start with being moderate to dipping to single digits to rising to double digit usage in the last decade. This phenomenon can be explained through historical political background. As described earlier, the Chinese went through turbulent times during the 1980's leading to the Cultural Revolution. During this decade, many scholars were persecuted on traditional thought and many sought refuge in Western medicine to avoid trouble as well as to assimilate to their new American environments. Many of these Chinese immigrants felt fazed and confused about their own national identity ties, many rejecting their original Chinese traditional medicinal ideas and embracing biomedicine. Thus, as the numbers show, there was a dip in the number of Chinese immigrants who used various medicinal foods. There was an increase in the last decade due to a new revival in Chinese medicine interest. Starting in 1992, the Chinese government issued a new project that would investigate Chinese medicine and bring it back to the medicinal system. However, many medicinal elders have already passed away or fled the nation without training new students that can transmit the more ancient and complex teachings. The new Chinese medicine that still exists or is reviving in China is a medicinal wellness system fueled by social media that targets chronic illnesses that Western medicine fails to treat. Both Taiwanese and Chinese experience a rise in medicinal foods overall due to wellness being an important factor in the United States health system. Immigrants recognize that reduction in side effects in complementary alternative medicine and are aware of the side effects of Western pharmaceuticals.

The general consensus indices were high and similar to both groups, denoting that both groups had pretty similar agreements as to how foods were being used medicinally. The most cited foods were once again those that can treat yang poisoning. Tables 6a and 6b give the consensus indices as well as information on various illnesses and their symptoms and treatments as described by the informants.

Scientific Name [Voucher ID]	English Name	Chinese Name	PU	Medicinal Use	CHN	TW	CHN	TW	CHN>1980	TW>1980
					<1980	<1980	1980	1980		
AMARYLLIDACEAE										
<i>Allium cepa</i> L.	Onion	洋葱	bu	Warming Tonic	3	4	4	7	8	7
ARALIACEAE										
<i>Panax ginseng</i> C.A. Mey	Ginseng	人参	ro	Warming Tonic	14	13	8	12	12	14
AURICULARIACEAE										
<i>Auricularia auricula-judae</i> (Bull.) J.Schröt.	Black Woodear	黑木耳	fu	Warming Tonic	5	7	3	8	12	11
BANGIACEAE										
<i>Porphyra umbilicalis</i>	Sea Weed	海草	Le; St	Cooling Tonic	8	12	5	8	15	16
BRASSICACEAE										
<i>Raphanus sativus</i> var. <i>longipinnatus</i> L.	White Raddish	白萝卜	Ro	Cooling Tonic	8	10	5	9	9	10
<i>Isatis tinctoria</i> L.	Woad Root	板蓝根	Ro	Cooling Tonic	13	2	8	0	15	3
<i>Nasturtium officinale</i>	Watercress	豆瓣	Le; St	Cooling Tonic; Respiratory	1	4	2	8	8	9
CUCURBITACEAE										
<i>Momordica charantia</i>	Bittermelon	苦瓜	Fu	Cooling Tonic	5	11	2	10	4	12
FABACEAE										
<i>Vigna radiata</i> (L.) R. Wilczek	Mung Bean	绿豆	Fu	Cooling Tonic	13	14	12	15	15	17
<i>Vigna angularis</i> (Willd.) Ohwi & H. Ohashi	Red Bean	红豆	Fu	Warming Tonic	11	16	5	10	12	14
JUGLANDACEAE										
<i>Juglans regia</i>	Walnut	核桃	Fu	Warming Tonic	5	7	3	8	12	11
LAURACEAE										
<i>Cinnamomum verum</i>	Cinnamon	肉桂	Ba	Warming Tonic	2	3	2	3	10	6

Tremella fuciformis Berk ZINGIBERACEAE	White Wood Ear	银耳	Fu	Cooling Tonic	15	14	6	12	11	9
Zingiber officinale	Ginger	生姜	Ro	Warming Tonic; Motion Sickness, Gas	18	17	9	16	14	16

Table 7. Medicinal foods and their types of tonics and various illnesses such as Respiratory and Gastrointestinal benefits over 3 generations.

Scientific Name [Voucher ID]	English Name	Chinese Name	PU	Medicinal Use	CHN <1980	TW <1980	CHN 1980	TW 1980	CHN>1980	TW>1980
AURICULARIACEAE										
<i>Auricularia auricula-judae</i> (Bull.) <i>J.Schröt.</i>	Black Woodear	木耳	Fu	tonic, iron, cleansing	8	12	5	8	14	15
AMARANTHACEAE										
<i>Spinacia oleracea</i> L.	Spinach	菠菜	L;St	iron	4	7	8	9	12	14
<i>Allium sativum</i> L.	Garlic	大蒜	Bu	antibacterial, warming, hypertension;	15	19	10	18	15	20
APIACEAE										
<i>Apium graveolins subsp dulce</i> (Mill.) Schubl. & G Martens	Celery	芹菜	L;St	hypertension	6	10	8	10	12	13
<i>Angelica</i> spp.	Angelica	当归	Ro	hypertension	3	4	2	3	8	9

CONVOLVULACEAE											
<i>Ipomoea batatas</i> (L.) Lam	Sweet Potato	红素	Ro	Constipation; Detoxification	0	5	0	8	3	9	
BANGIACEAE											
<i>Porphyra umbilicalis</i>	Seaweed	海菜	L;St	cooling, tonic, hypertension	5	6	4	12	13	15	
CUCURBITACEAE											
<i>Cucurbita</i> spp.	Pumpkin	南瓜	Fu	hypertension	1	4	2	8	8	10	
<i>Momordica charantia</i>	Bittermelon	苦瓜	Fu	hypertension	5	12	3	15	8	14	
FABACEAE											
<i>Vigna angularis</i> (Willd.) Ohwi & <i>H. Ohashi</i>	Red Bean	红豆	Fu	Iron; constipation	8	10	5	10	14	13	
<i>Astragalus onobrychis</i>	Astragalus	黄芪	Ro	Tonic, cleansing of blood	3	4	2	4	9	6	
LAURACEAE											
<i>Cinnamomum</i> spp.	Cinnamon	肉桂	Ba	menstrual periods, iron	4	9	3	6	12	10	
MALVACEAE											
<i>Abelmoschus esculentus</i> (L.) <i>Moench</i>	Okra	牛角豆	Fu	diabetes	0	6	0	7	2	8	
RHAMNACEAE											
<i>Ziziphus jujuba</i> Mill	Red Dates	红枣	Fu	iron	8	13	7	18	16	19	

ROSACEAE					2	4	7	13	8	15
<i>Malus Domestica Borkh</i>	Apples	苹果	Fu	iron						
VITACEAE					3	4	5	6	9	7
<i>Vitis labrusca L.</i>	Raisins	葡萄干	Fu	iron						

Table 8. Medicinal foods and their cardiovascular benefits over 3 generations.

General Category of Use	Specific uses, including disease targets, therapeutic aims	Symptoms
Yang Poisoning	Aims to detox yang poison or increase yin to balance	pimples, dry throat, sore throat, phlegm, constipation, dryness, fever, stuffy nose, nose bleed, flushed cheeks, dark urine, mouth ulcers
Yin Poisoning	Aims to detox yin poison or increase yang to balance	palor, diarrhea, cold, lethargic, fatigue, lack of energy
Diabetes	Aims to bring blood sugar levels back to normal	low blood sugar, frequent urination, fatigue
Hypertension	Aims to bring down blood pressure	heaty symptoms, thirsty, dizzy, bad tempered, stress
Anemia	Aims to give iron boost	pale, cold, dizzy

Gastrointestinal	Aims to aid in digestion, sooth gastrointestinal problems, diarrhea, constipation, stomache	constipation, stomache, bloatedness, indigestion, poor digestion, acid reflux
Respiratory	Aims to soothe and alleviate discomfort in respiratory parts	sore throat, cough, flu, phlegm
General Well Being	seeks to improve health, immune boosting, panacea	sick often, poor energy
Menstrual Cramps	Aims to soothe pain, speed up timing, better process	cramps, fatigue, lengthy menstrual time, anemia

Table 6a. Illnesses, description of the medicinal food's pathways, and the symptoms of the illnesses.

Category of Use	Number of Taxa		Number of Use Reports		Informant Consensus Factor	
	Taiwanese	Chinese	Taiwanese	Chinese	Taiwanese	Chinese
Treat Yang Poisoning	13	12	445	392	0.972973	0.971867
Treat Yin Poisoning	11	12	291	247	0.9655172	0.955285
Treat Diabetes	7	6	84	29	0.9277108	0.821429

Treat Hypertension	5	4	96	76	0.9578947	0.96
Anemia	7	7	248	183	0.9757085	0.967033
Gastrointestinal	6	5	199	106	0.9747475	0.961905
Respiratory	9	5	159	129	0.9493671	0.96875
Menstrual Cramps	3	5	133	88	0.9848485	0.954023
General Well Being	12	9	100	89	0.8888889	0.909091
Total	73	65	1755	1339		

Table 6b. Number of specimens and their consensus indices for the two groups.

1970s: Assimilation and Ghost Memories

Most of the people who were interviewed who migrated to the US in the 1970s were well assimilated people in their 50's who could speak fluent English and had more American customs than their counterparts. Between the Chinese and Taiwanese people, roughly half of each believed in using a mixture of Western and Chinese medicine or only Western medicine. Half of each believed in the heaty and cooling chi system. The

number of medicinal foods reported were lower than their future generations, and the foods reported tended to be more Western. For example, they cited celery, raisins, oatmeal, and other American foods they probably heard during the last 30 years here in the United States. Compared to the newest generation, they used less Traditional Chinese herbs. To them, these seemed to be ghost herbs that they remember fragments of when they left China. Many have forgotten the use and names of these herbs, and thus these herbs have fallen out of use amongst the Chinese and Taiwanese immigrants of the 1970's. This group tended to have higher hypertension, diabetic, and other cardiac problems due to older age. It was in this group did I collect some of my most interesting field work for blood disorders. I interviewed Alex Wang, a Chinese immigrant at the Great Wall supermarket where his wife and mother were shopping (Photo 1). I asked him about what foods he would take for any blood problems

“Western medicine... I mean if you have blood problems, then obviously you need something strong and no food is going to solve it immediately...Hypertension is best controlled by Western meds...”

In comparison, when I asked John Liu, a Taiwanese immigrant about his diabetes problems, he said, *“I’ve had diabetes for over 15 years now. And most Taiwanese like me who get illnesses like this, we switch to vegetables and gardening immediately. Like this, I learned that if I plant my own okra, I cut it into 4 pieces, soak it in water over night and drink the slimy stuff that comes out. A lot of Chinese vegetables are great but hard to grow, like the Chinese Water spinach. It’s a banned species in Georgia because it grows like crazy and can choke up a whole pond! But Taiwanese people are such extreme growers, we’ll try it... especially if it’s a tasty and good vegetable! Blood diseases? Veggies first. Those Western meds are great, but they pack some terrible side effects that I totally hate... but now that I’m eating my own vegetables, my friends and I agree we feel great and can maintain beautiful blood sugar levels!”*

John brought up an interesting point as this was the generation that had the most medicinal food gardens out of all the groups interviewed. It could be that because these individuals are older and most are retired, they have the time to plant extensive gardens, but this trait is only found in the Taiwanese over the Chinese. I am not sure why Chinese immigrants in this era would choose Western meds over planting their own vegetables so much. I do know that with an increase in Chinese supermarkets the newer generations are not as likely to plant vegetables since the market is cheaper than the labor required. I suspect that perhaps Taiwan has more farmland than the urban centers that these Chinese immigrants came from, and thus this agricultural influence affects Taiwanese immigrants more who are used to driving past fields where they get their fresh produce from. Also, Taiwanese people did indeed plant some very unique vegetables that would be considered exotic even in Chinese supermarkets. Taiwan is known as “King Fruit” in Asia, because its vegetables and fruits are famously bred for their quality and size. I remember seeing watermelons as large as tables, peaches that explode with juice, and mangoes the size of footballs in markets. Could this genetic plant breeding play a role as to why Taiwanese here in the United States are more likely to garden and plant compared to their Chinese counterparts?

Other medicinal foods I found were popular during this era included sweet potato leaves and sweet potatoes, bitter melon, and red dates among the Taiwanese. Bitter melon is another popular medicinal food that Taiwanese extolled about. Bitter melons were eaten during summer time because they were cooling and great for balancing out heaty chis. Bitter melon is also great for blood pressure and diabetics. The fruit of the plant is usually sliced into rings and either cooked into soup to brew out the bitter taste or lightly sautéed with various spices. Many people believe it is the bitter component that makes a bitter melon so medicinal; as I asked some older people how they chose bitter melons in the supermarket, many would say that the greener or the more bumpy a surface was, the more bitter. Parents with children tended to buy yellow smooth skinned bitter melons compared to elderly individuals. Bitter melons were also a popular plant to garden because people would plant it by their garages to climb stair wells. Sweet potatoes were also popular because Taiwanese believed it had powerful “detoxifying” properties, or in Chinese “pai du.” Sweet

potatoes were advised to be consumed at dinner or breakfast or during times when a person would not be in the public, because it caused flatulence as it is effective for easing constipation. The root is usually baked or chopped and steamed with rice to make porridge. The leaves are also a special part of the plant that Taiwanese people consume more over Chinese participants. The leaves are often sautéed or steamed. Taiwanese people call these vegetables as the “poor farmer’s food”, but it is quickly becoming a popular national snack. It is known for its detoxifying properties. Once more it must be noted that the Taiwanese tended to cite medicinal foods that had detoxifying or laxative effects. They found that toxins were the main cause as to why the human body had imbalances in chis.

Chinese were fond of the woad root which they used for preventing colds and other illnesses. Mothers would tell me that if their children were beginning to show symptoms, or if they were at a time of year where people around them were falling ill to illnesses, they would woad root soup. It is an herb that Taiwanese immigrants were less likely to use. In fact, in every decade almost no Taiwanese used woad root whereas more than half of each Chinese sub group would report its usage for immune system treatment.

Also, I noted that Chinese and Taiwanese medicinal concoctions and treatments are simpler during this era compared to the newest generation. The newest generation usually used pills that had extracts of Chinese herbs with medicinal functions that they themselves were not sure of. Chinese and Taiwanese during this era were more likely to site one or two medicinal foods in simple one ingredient one treatment fashion. Their recipes would be quite simple: for colds, brown sugar and ginger soup, for motion sickness, ginger, blood tonic- black woodear. Even the recipes would be quite simple such as black woodear with chicken soup. Both groups during this generation were big fans of teas, brews, and soups.

1980’s: A Decrease Amongst the Chinese

Compared to the 1970's, Chinese participants reported a slight decrease in usages of medicinal foods. The changes were not significant usually changing from 5 to about 3 of the 20 individuals in a group. Once more it must be noted that during this time, Chinese grocery stores were still a rarity and thus they, like their 1970's counterparts had less access to Chinese fresh produce. Much of these fresh produce which had to be imported from Asia and then cross over from the West Coast were not of good quality so Chinese people were not likely to purchase them. Also, because of the lack of supply and shipping, the prices were often high. Participants in the 1980's and 1970's were more likely to purchase or experiment with American products. For example, when they were asked about treatments for hypertension, they would cite celery as a medicinal food. This is an American concept that even the participants who arrived in the 1990's said was foreign to the original Chinese medicine. Oatmeal, which is also a known treatment for cholesterol and blood pressure also arose in some responses even though oatmeal and even broccoli are foreign to Chinese residents before the 1990's. The slight decrease in the Chinese preferences arose from the historical events and tensions that arose in the government prior to their arrival. Medicinal food preferences did not experience as much of a dramatic decrease compared to other health questions such as yin and yang preference, eastern medicine preferences, or perspectives of the future of Chinese medicine. This may be because food is essential and not much changes can be made if it is a diet necessity that one has lived with all their lives.

The Taiwanese did not have much of a change in medicinal food preferences during this decade compared to the 1970's. They did not experience any political turmoil during this time, but rather became a democratic Westernized nation. Some participants stated that rarities such as red delicious apples became more abundant and Western fast food began to appear in the nation during this time. One participant told me that as a child he used to save up his Christmas money just to buy one red delicious apple. Thus in his 20's when he left Taiwan, he felt that the United States was already having much influence with Taiwan that when he arrived in the US, besides customs he felt there were no differences.

1990's: The Rise in Diet Health

Once more the Taiwanese numbers for medicinal foods did not experience much changes. Some of them increased due to perhaps more knowledge from medical studies. Growing up in the 1990's, I recalled seeing newspapers extolling the latest fads and popular food items that were good for various health problems. The fads were usually a certain vegetable like for example, drinking one glass of pomegranate juice a day is great for men's health! Thus, Taiwanese and Chinese alike were more open to trying new foods found in the American diet that were not found in the Chinese diet and that may explain why there is not much of a change in medicinal food usage among the Taiwanese because more foods were added to the cache of choices.

What is interesting is that the Chinese reported much higher usages of foods compared to the previous decades, especially compared to the 1980's. A couple of respondents told me this was because the Chinese were facing more and more chronic illnesses and are recognizing that Western medicine has many side effects. Many are switching to medicines that they can have more authority on and have less side effects. Blogs, newspapers articles, and even flyers in supermarkets are often more popularly read by Chinese over the Taiwanese. However, the Taiwanese are more likely to actually utilize or try out fad vegetable diets that they deemed were reasonable. Green tea is a popular drink amongst the new generations, because teas and ready to brew packets are quick and convenient. Teas such as astragalus, rose tea, green tea, and even barley herbal teas are popular amongst the Chinese, while green teas are the most popular amongst the Taiwanese. Taiwanese tea has reached a high enough quality that many tea connoisseurs have started to trade or bring back the tea to the United States for distinguished guests or family. It is now recognized that the best teas come from Taiwan from the *Camellia sinensis* family. Among all the medicinal foods, the Chinese reported almost more than half their subgroup for using these foods.

It should be noted that most of the foods listed in this era are geared to treating yang poisoning. So most foods that are popular in this era are cooling foods such as mung bean, green tea, and white wood ear. Some people reported that this was because current living conditions such as

food and climate are very hearty and cooling foods must be consumed more to balance this heat. Fast food and crowded cities are associated with the increase in hearty energies that plague most people. Most students in colleges carry cooling remedies in their medicinal kit. One often hears about young people having “shang huo” or the rising of heat, and rarely hear about a young person needing more iron or heat in their systems. Many immigrants said that coming to the United States have also changed their body’s natural chi composition. Chinese immigrants reported being ill at some point in their first few months in the United States because they described the food as , “Greasy and chi-less foods that have no nutritional benefit but somehow make one very hearty.”

Thus, there has been a rise in using more medicinal foods over medicines because people recognize that most illnesses that plague the Chinese or Taiwanese community are chronic illnesses that have upset the homeostasis in the human body. Colds and fevers are treated with preventative medicines and diet rather than Western medicine because younger Chinese people are reverting back to the idea of chi imbalance. Certainly, the antibiotics are used as a last resort if home remedies are not working well. I thus argue that while medical pluralism exists, this blending of Chinese herbs and Western medicines for acute illnesses is a new hybrid medicine. Older traditions in medicine are not necessarily thrown out, but remade into pertinent points that can be compatible to a new medicinal system that immigrants migrate to. In this case, the diet medicine fits the best for the wellness model currently being used in the United States, and thus it is the easiest form of medicine to retain from older Chinese medicines.

Part 2

Disbelief and Belief- How the Decades Can Say Much About Someone

Chinese and Taiwanese immigrants have lived in the United States as early as the 1800's when Chinese workers came to work on the railroad. Known as the "coolies", they opened restaurants and helped with the transcontinental railway that linked the Eastern and Western sides of the United States. Chinese immigrants were not well received or respected during this time, and thus, they stayed amongst themselves and there was very little Chinese culture interest among Americans. These Chinese however, assimilated quickly, and brought their families over. It was not until the 1970's did the first Taiwanese started migrating to the United States when the Immigration Act was passed in 1965. This bill allowed a quota of 20,000 immigrants from each nation, and many of those who came from the Chinese nation were from Hong Kong and Taiwan. In 1979, a bill recognized Taiwan as a different entity from China and allowed a separate quota of immigrants to enter the United States. Many of these people who came were scholars and students and this number only increased after the Tiananmen Square incident. President Bush signed into effect the Chinese Student Protection Act in 1992 and the Immigration Bill of 1990, and this increased the number of Chinese immigrants and their families. The number of visas increased by 40% (1).

Date	Chinese	Taiwanese
1965		<p>Immigration and Nationality Act- rejects “national origins” as a basis for distributing immigration quotas- 20,000 new quota per country- surge in Taiwanese</p>
1979	<p>Long-separated Chinese American family members reunite as the People’s Republic of China and the United States resume diplomatic dialogues.</p>	<p>Taiwanese Relations Act- gives Taiwan a separate immigration quota from mainland China, resulting in greater numbers of Taiwanese immigrants to the United States.</p>
1989	<p>Tiananmen Square Protests- President George H.W. Bush issues an executive order that permits mainland Chinese scholars,</p>	

	students, and their families to permanently stay in the United States.	
1990	<p>1990 immigration Act- increases the total immigration to the United States to 700,000 per annum and increases visas by 40 percent</p> <p>Population: 1,645,472</p>	
1992	<p>The Chinese Student Protection Act (CSPA Act) grants permanent resident status to nationals of the People's Republic of China who were in the United States after June 4, 1989 and before April 11, 1990. This Act gains passage partly as a reaction to the Tiananmen Square incident of 1989.</p>	
2000	Population: 2,879,636	

Table 1. Timeline history of Taiwanese and Chinese immigration from 1950-present.

Since then, Chinese people make up almost 3 million of the 300 million people of the United States. Their numbers are growing in large urban centers such as Los Angeles, New York, Chicago, and Atlanta.

Each decade of immigrants has their own stories, shared experiences, viewpoints, and personalities. Out of the generation decades, the three decades that were chosen to be examined were the 1970's, 1980's, and 1990's. These dates were chosen from the comments and responses of the interviewees who categorized themselves based on these decades. Gathering their responses and perspectives, I have given each decade its own unique name and describe their similarities and uniqueness to one another. This section talks about how the decade they migrate to the United States affects how they view traditional Chinese medicine versus Western medicine, use of medicinal foods, beliefs in the yin and yang chi system, and views on chronic diseases. The 1970's and 1990's did not have statistical differences between the Taiwanese and Chinese groups, but the 1980's had some very interesting results. I have termed the 1980's "the Hole" and it is the central thesis of my work because it reflects a unique national and social identity due to a time of political crisis. The social and political implications behind the Chinese communist governments' policies affected a whole generation of immigrants, and thus I will talk about my findings qualitatively and quantitatively. The results can be summarized in Tables 5a-f

Heiner Fruehauf's work "Chinese Medicine in Crisis: Science, Politics, and the Making of "TCM"(72) gives a great sociopolitical background behind Chinese medicine and the political background. Chinese medicine faced its first challenge when Western medicine was introduced; suddenly Chinese medicine was no longer the central medicine but now there was another medicine. Next in the first half of the 20th century, Chinese medicine became labeled as a despicable symbol of everything old and backward. It became the scapegoat that all political reformers pinned as the blame for backwardness and they all sought to abolish it. There became a movement to replace its essential core teachings with the "correct" parameters of modern science. Thus this slow reform weakened the Chinese medicine's original stronghold in citizens' minds. Ironically, it was Sun Yat Sen, the leader of the Republican revolution that toppled the dynasty system in 1911 who started the persecutions of Chinese medicine. He and his leaders would later flee to Taiwan where years later, Chinese medicinal doctors would also flee too and Taiwan would become the main Chinese medicinal capital of the world. Sun had Western medicinal background and had a bias against Chinese medicine and penned the "Case for the Abolishment of Old Medicine to Thoroughly Eliminate Public Health Obstacles." The laws were not implemented due to the thousands of protesting doctors and patients who protested vehemently, but they had already set the stage for the downward spiral of Chinese medicine. During that time, Mao Zedong on his rise to power was also paralleling similar thoughts as Sun, as he instructed guerilla government to persecute all traditional medicine and establish proper public health systems.

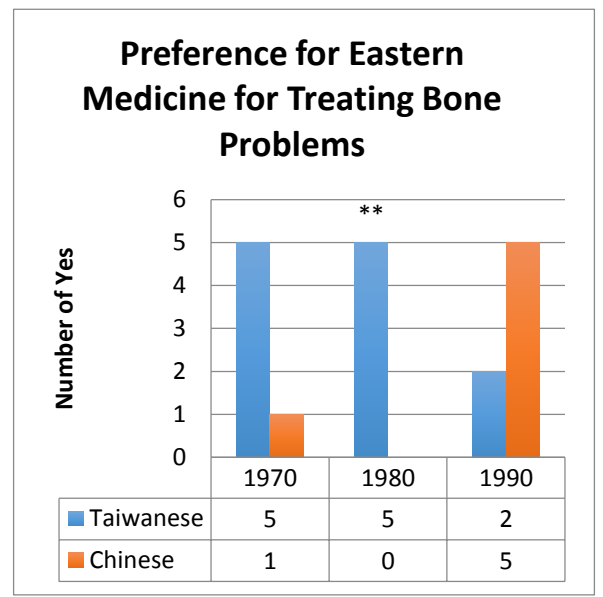
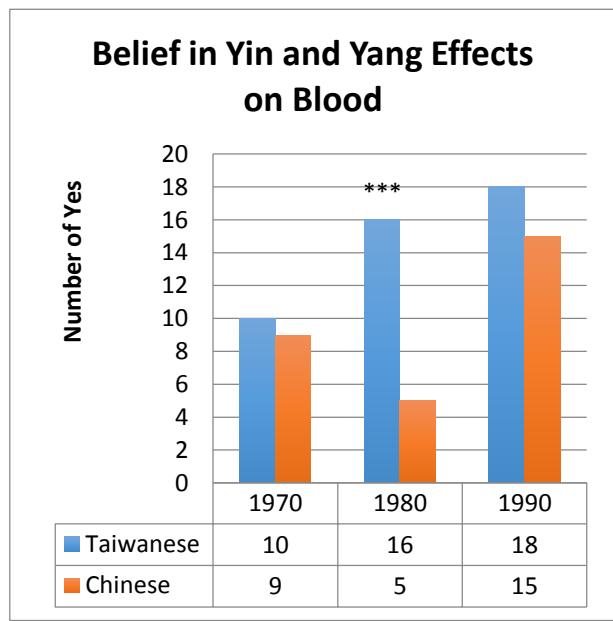
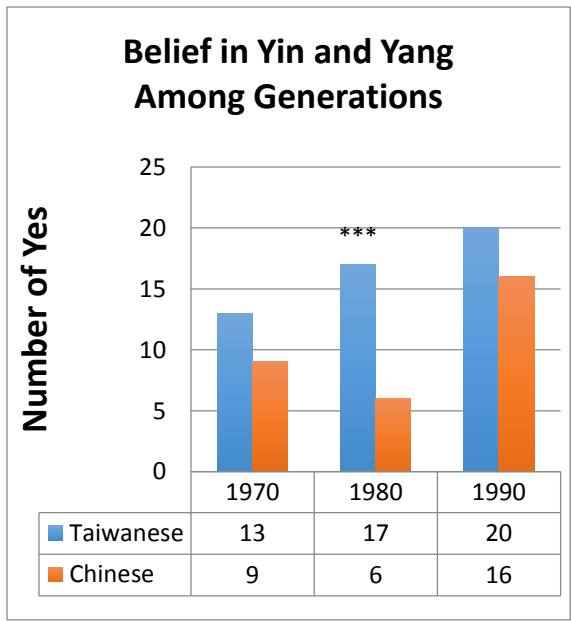
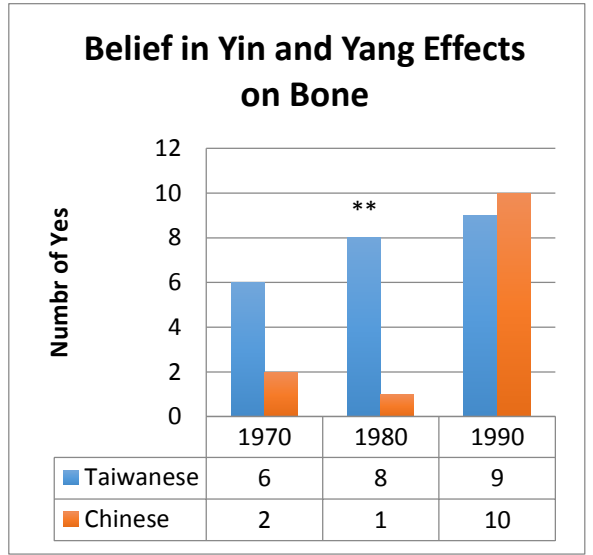
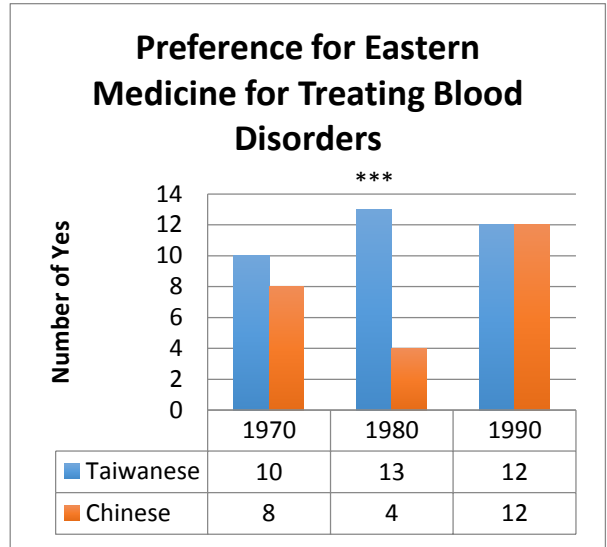
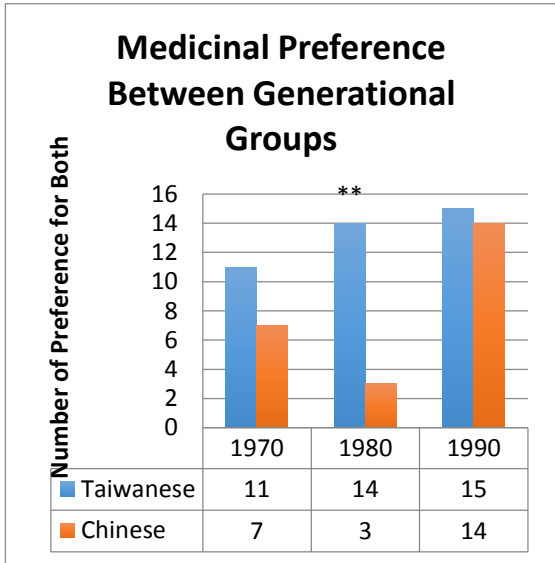
When Mao Zedong came into power, he used Chinese medicine as a political message to the Soviet Union to better secure resources. In 1958, he started the Western medicine integration movement that biased individuals who had Western medicinal knowledge to become physicians. He implemented exams that favored Western medicinal graduates of the reform/integration seminars, and thus most doctors from the 1980's and 1990's were products of this system. Freuhauf (72) stated that

“This situation was the primary reason for the woeful plight of Chinese medicine under the TCM system- m—traditional medicine in mainland China is managed by individuals who for the most part, and often openly, entertain deep-seated suspicions against the field that they are supposed to represent. In a radical sense, the history of TCM can be described as the history of implementing anti-traditional sentiments into the general atmosphere of Chinese medicine education and practice.”

Chinese medicine went through more turmoil in the 1960's when the Cultural Revolution paralyzed China. The main goal was to eradicate the feudalist influence, all old master practitioners of Chinese medicine, higher education, and many of these scholars were publically humiliated, criticized, and even beaten to death. Many physicians tried their best to burn their books and other traditional tools to avoid persecution. Some fled the country, others died from grief or abuse, and thus much of the Chinese medicinal legacies perished in this era permanently. Mao's purpose was that he believed doctors who practiced TCM were charlatans who could not provide for the poor and thus the ones who enter the rural areas were the best doctors because they could actively practice rather than stay in clinics. Thus, the barefoot doctor movement arose; they were a group of doctors who had received very rudimentary education and did not receive proper education in differential diagnostics.

The next blow to Chinese medicine occurred in the 1980's when the concept of "Chinese medicine improvement by methodology research" was implemented. Basically, political leaders who had no Chinese background attempted to take Chinese medicine and fit it to scientific models to better advance medicine. They chose 3 main parts of Chinese medicine to Westernize and banned the reprints of old original and crucial texts, such as the Yellow Emperor's Classic of Medicine. Many of the doctors born from this era call themselves Chinese doctors when in truth, most of their training is Westernized sprinkled in with some cook book style remedies. Thus, many people who migrated to the United States during the 1980's have a lack of trust in Chinese medicine because of the political turmoil they experienced growing up, and also they felt that the Chinese doctors themselves do not have a complete and stable understanding of medicine. Chinese medicine began an upward revival in the 1990's until a publisher was able to publish a book entitled "Zhongyi Chensi Lu" (Pondering Core Issues of Chinese Medicine). Since then, the immigrants in my study have provided information about the changes that have occurred in China. Some claim that Chinese medicine is on the rise again, but others are not sure if it is the true Chinese medicine, or it is a couple of tenets teased out and focused on and the past medicines are forever lost with the elders.

With this historical background in Chinese medicine, I aim to show how my interviewee's narratives parallel the literature as well as their experiences as immigrants in the United States. I knew there were going to be differences between the responses of my Taiwanese and Chinese immigrants, but I was curious to understand the anthropological reasons behind every yes and no.



Tables 5a-f. Differences in health perspectives throughout the decades. * denotes $p < 0.1$. **denotes $p < 0.05$ and *** denotes $p < 0.01$.

1970's- The Pioneers

As described earlier, the first Chinese and Taiwanese who came to the United States were the ones who worked for the railroad and thus stayed after. Those who migrated to the United States during the 1970's onward were usually those in pursuit of better economic or academic resources. These people often called themselves pioneers and were the most Americanized out of the three generations that were interviewed. Ethnographically, it was not uncommon to see American flags, cowboys, John Denver, and American slang intertwined in their homes and language. Most of the Chinese and Taiwanese in this era could speak very fluent English with a mild Chinese accent. The two groups had similar occupations- many were advanced degree holders who worked for engineering, computer software, or scientific institutions.

In terms of health perspectives, both had similar views and preferences. There were no significant differences in the seven questions asked about their beliefs in yin and yang system, preference for Eastern medicine in the treatment of blood and bone disorders, belief of yin and yang's effects on blood and bone disorders, and viewpoints on the future of Chinese medicine. Note that the number of those who believed in traditional Chinese medicine concepts are the lowest numbers reported across the three generations. This may be because of assimilation, lack of Chinese medicine over time, and disuse over time due to lack of contact with

original Chinese teachings. The Chinese and Taiwanese in this group had very similar usages and citations of medicinal foods used. This could be due to the limited resources and choices they had to choose from and thus over time they relied on the original foods they had access to. It is interesting that the Chinese did not differ from their counterparts as much even though China was already going through the Cultural Revolution that was persecuting Chinese doctors. Perhaps these migrants were too young and the event was too recent to have made a large impact on this group before they left from China. They seemed not to harbor any negativity or much thought to Chinese revolutionary history. The ones who came in the 1980s were more vocal about their experiences leaving China.

For example, for blood problems, the number of those who believe that yin and yang affected blood were 10 for Taiwanese and 9 were Chinese out of their groups of 20 each. Because this age group was older, they tended to have more cardiovascular disorders such as hypertension, diabetes, and high cholesterol. They both relied on a combination of Western drugs to take care of acute and urgent needs, but at the same time mixed in some medicinal foods. This group was the most likely out of the three groups to incorporate both Western and Chinese medicinal foods. For Chinese treatments, both cited Hawthorn for cardiac problems, the Taiwanese cited bittermelon for high blood pressure and diabetes, both cited black wood ear for blood tonic, both cited red dates for anemia and warming of blood, and both cited red beans for anemia and warming properties. Some of the Western medicinal foods they incorporated included oatmeal for hypertension, garlic for high blood pressure, celery for high blood pressure, apples and spinach for anemia, and flax seeds for high blood pressure. Both groups had similar numbers in those who believe TCM would be a better

medicinal system for treating blood disorders, but once again, compared to future generations, their numbers were lower maybe because their old age correlated with more acute cardiac problems that required stronger Western medicines.

For bone problems, both groups also had similar numbers in those who believe that yin and yang correlated with bone disorders. 6 Taiwanese and 2 Chinese people cited that they believe the imbalance of the yin and yang chi affected bone disorders whether internally or externally. Chinese and Taiwanese alike agreed that the yin and yang balance system is humoral and thus affected things that “flow” rather than rigid systems such as the bone problem. They attributed the pain in gout and arthritis being exacerbated by temperature conditions that created an imbalance between the individual’s own homeostasis with the external forces.

1980’s- The Hole

All three generations have their own style and charisma, but the 1970’s and 1990’s beyond had both Chinese and Taiwanese immigrants agreeing on more or less the same points. There were not much differences in terms of belief in traditional Chinese medicine or usage of the yin and yang balance system. However, during the 1980’s there was a major difference between the two groups in terms of health preferences and perspectives. As I questioned my interviewees and read through literature, it became clear that there were social political forces behind the disparate answers I was receiving from both groups. It was these difference that I began to notice that formed the basis of my thesis. It was intriguing that such biologically similar people who had so much agreed on answers in the past decade could now differ so much in their preferences. The answers they differed on most are shown in **Table 5a-f.**

Taiwanese showed higher preferences for believing in the yin and yang system, were more likely to say they used a fusion of both Western and Chinese medicine, and believe that the chi system played a role in blood and bone disorders. Rainbow Hong, a Chinese immigrant who came to the United States in 1988 explained,

“It was a tense time before I came, you know, one year before the Tiananmen Square incident. We scholars always felt pressure from the government. They were persecuting one day and then the next day they would be saying our work was important. Many scholars fled.. the doctors to Taiwan, and many of us to the United States because we could not handle the instability... as for the Chinese medicine... well, we didn’t trust our government and feelings were very bad and no one trusted anything Chinese...”

Her sentiments were echoed among the Chinese people who immigrated in this decade; they described turbulent times where they felt that their thoughts and trust were not safe. Many Chinese people who left during this era were not financially off, and most Chinese who migrate in this era tend to make a lower income from their Taiwanese counterparts. Some embraced Western medicine because to them that was their new future and it was a certain future. Also, many wanted to shed the tumultuous Chinese background image to their American counterparts and thus adopted biomedical beliefs. Another group cited that another reason for the negative responses about using traditional medicine also stemmed from the fact that many good Chinese doctors fled or went into hiding and thus this generation grew up in a period where there were no Chinese medicines available for them. In fact, I received some responses saying “I don’t know much about Chinese medicine, but I would like to learn some” more than I had expected. Thus a reason why

Chinese immigrants may report a preference for Western medicine over Chinese medicine could be that they were ignorant and had not been exposed to enough Chinese medicine to make a decision. Another interviewee said,

“It got worse... for a long period of time, and even now, no one trusted Chinese products. Even we ourselves question the food safety of products that say “Made in China” on them. As for herbs, it’s hard to trust where they come from... so first you have us, the ones who had bad experiences leaving China who had it worse when people around us started shaming China’s integrity and honesty...”

I found this narrative touching at times, because the Chinese immigrants often expressed frustration that they wanted to feel proud of their own Chinese background and are glad that things are improving greatly, but through most of their adulthood from 22-40, the world watched China go through so much turbulence. This turbulence in a sense, scarred some Chinese people in terms of trust and pride in the old traditional Chinese ways but bred a group who embraced Western science and medicines. As Freuhauf stated, during the 1980-1985 era, doctors who were chosen to pass the exams were those who had Western training and these physicians were a bitter and wary lot who felt they were doctors representing against their own cause. Their own teachings were watered down versions of Chinese medicine and they were more familiar with Western medicines. The elders of Chinese medicine had either fled or were dead from the Chinese Cultural Revolution. There really was no where to turn to in terms of trust and belief; Chinese medicine had been labeled as a scapegoat that had to be gotten rid of and had been tainted by so many political powers that the damage was irreparable.

Interestingly, this political disruption was what most Taiwanese cited as the main reason for the difference in medicinal and health care perspectives. During the 1980's, Taiwan went through remarkable economic change, making its way into the Asian Five Tiger Category. It became a large exporter of technological devices and the United States established trading rights with the nation in 1979. Thus Taiwan went through democratic changes that brought economic prosperity to the nation, blending and introducing Western culture without dismantling Chinese traditional cultural pride. The Taiwanese had no political disruption, no one was persecuted, there was stability, and most importantly, many good Chinese doctors had fled to Taiwan during this time. Dr. Hansen Chang, a physician who practices acupuncture and Western medicine in Atlanta was the first to explain to me this phenomenon that had me interested in exploring cultural differences.

“I received my acupuncture training in Taiwan because that’s where the new traditional medicine capital is... Oh no, not China anymore, there’s actually papers published about this. They had a political turnover that had the good doctors running to Taiwan and so Taiwan preserved the old stuff. In fact, I think Taiwan sometimes has more authentic stuff than China has to offer- at least more pure and untainted....”

I found the Taiwanese answers most interesting because as stated in the introduction, Sun Yat Sen had been a huge champion of Western medicine due to his background and had persecuted Chinese doctors at first. Now, these participants seemed to know more about Chinese medicine, and the Chinese elders had fled to Taiwan. I am not sure about the reasons as to how Chinese medicine rose again in Taiwan when their leader had started the persecutions years ago.

The reasons why the Taiwanese chose their answers was more than just a political difference; many had very ingrained beliefs in the yin and yang system. There were no doubts in their answers; almost all gave very self-convinced arguments for why they would prefer using both medicinal systems to treat an illness rather than one system, which all the time was Western medicine. Although most would turn to Western medicine for acute symptoms, almost all cited preventative medicine and using medicinal foods as their main remedies. For example, many said if their child complained of cold symptoms, the Taiwanese could recognize them as “heaty poisoning” symptoms and would start treating with green bean soup or other cooling foods to counterbalance the heat and bring the body back to homeostasis. While the Chinese respondents said they would also use green bean soup in their treatment, they would not mention it until much later. Most Chinese would turn to Western therapies first, and few would actually use woad root or green bean soup. Woad root is the special herb that Chinese immigrants seemed to prefer that almost no Taiwanese used.

One thing I found most interesting in the difference between Chinese and Taiwanese during this era was the medicinal foods they consumed. The Chinese, if they used any Chinese herbs at all, used dried herbs, but the Taiwanese had more creative and diverse knowledge of functional foods. Most of the Taiwanese herbs could be planted; in fact those who planted extensive gardens among the interviewees were usually Taiwanese immigrants. Diverse gardens means more than ten species taking up more than a 5’X5’ square plot. Taiwanese planted Water spinach, bitter melon, okra, pumpkins, tomatoes, and various herbs. Chinese were more likely to not have gardens and relied on buying dried herbs. The Taiwanese were also quicker to cite fresh produce for medicinal food examples, compared to Chinese who cited dried herbs first such as ginseng, astragalus, dried lily seeds, green beans, etc.

In terms of knowledge about illnesses, I noticed that the Taiwanese were more likely to describe the curing of illnesses in terms of digestion. For example, all foods they cited seemed to also have some correlation with digestion even if the main medicinal property is to treat anemia. Chinese people were more likely to cite herbs that only treat a particular affliction. For example when I ask both groups what they would use to remedy blood problems, the Chinese would say usually say, “red dates, goji berries, red bean, liver, cinnamon, brown sugar...” and then the Taiwanese would say, “black wood ear, red beans, raisins, red dates, spinach” and say those foods are also great for cleaning toxins and making one digest better. Note the difference in order of the foods named; the Chinese were more likely to list dried herbs and condiments while the Taiwanese were more likely to refer to functional foods and fresh produce. If I asked about blood sugar, the Chinese may cite herbs if they know of any, such as green tea, but the Taiwanese would almost always say sweet potato and sweet potato leaves because those can also “pai du” which means help with constipation and rid of toxins. Taiwanese were very much rooted in the idea of detoxification so as to clean and purify the blood; and detoxification usually meant in the form of digestion. For the Chinese, more teas were cited for illnesses rather than functional and medicinal foods.

1990's- The Revival

I call this generation the revival group because compared to their counterparts in the 1980s, this generation seemed to have an increase in interest Chinese medicine. I remembered sitting in my Chinese professor's office and scribbling furiously at what she was saying. I had developed short hand for my notes in the past, but her responses were new and I had no short hand for these new ideas. She was telling me that her new generation that she came in was a generation that had very distracted minds. With such dizzying economic, social, and political developments in

China, many people cannot quiet their minds and form their own concrete beliefs. Things are changing too quickly from day to day especially in the health arena. A new wellness fad has taken over China where the media shares various new nutrition concepts and different herbs are trendy on different weeks. It is difficult to say whether or not this is a revival because some of the old Chinese medicinal concepts such as pulse taking, bitter black herbal teas, and long brewing times are gone but the medicinal food section stayed. Not only did the section stay, but there are all kinds of new claims about the medicinal food usages of these foods, some from traditional medicine and others people randomly find on the internet on blogs. Thus, there is a revival in health interest but I am not sure if that necessarily means TCM.

Ethnographically, this group was split into two groups. At first I was thinking about splitting my group into 4 eras, but I decided based on historical events to keep all people who immigrated after 1990 in the same group. The earlier ones who arrive between 1990-1995 have sentiments slightly similar to the 1980's, but at the same time had similar views on the future of Chinese medicine as their counterparts who arrived in 2000 beyond, so they were a pseudo transitory stage between the second and third generations but I decided to put them into the third because of the history we have discussed so far.

Once more, the Taiwanese in this group were small business owners and the Chinese immigrants were those pursuing upper level science degrees. In the 1990's the US government passed an immigration law that increased the number of Chinese visas by 40% and a Chinese Student Protection Act in response to the Tiananmen Square. Thus thousands of Chinese students and their families came to the United States during the 1990's. This group stood out to me as a group that was more hopeful than their 1980's counterparts and livelier than their 1970's counterparts. When I say livelier, do not necessarily mean that they are younger and therefore vibrant, but I would describe them as a group that has a lot on their minds. One respondent said,

“This group we are in, there’s this white noise. China’s economic boom is dizzying and honestly no one can keep up. Materialistic goods are what we can rely on to be real, everything else is just so abstract. The doctors... we cannot trust them because they themselves cannot silence their minds. We are more confused and hopeful than our counterparts simply because we don’t have the same bitter lives they led but we grew up at a time where we never understood stability.... Or concrete living... we spiral and spiral...our minds are so tired.. and that’s why we have so many new psychological and chronic disorders... it’s all so heavy you know?”

Respondents in general describe the current times as generally bustling and exciting but with it comes a detrimental cost to mental and physical health. Chinese respondents describe Chinese cities as crowded, the number of smokers are increasing, fast food is everywhere, mental stress among the rich and poor is a common thing, and the air and food quality are a concern. While they are generally proud that their nation is raising in economic power, I sensed an unease among them. None of them praised China’s future hopefully and were reluctant to predict future trends. Some respondents said they feared a bubble burst and others said they didn’t want to jinx the future of their nation.

The 1970’s decade were well assimilated between Chinese and Western medicine and were split evenly in terms of preferring Chinese or Western medicine. The main reasons why they would choose Western medicine was because of the lack of Chinese providers in the United State or the discontinuation of Chinese traditions due to lack of use. The 1980’s decade of Chinese immigrants did not use Chinese medicine because they either went through a cultural shock of renouncing Chinese medicine or they had lack of exposure to Chinese medicine when the elders fled the nation and TCM became watered down. Now, this new wave of immigrants were different. They were the opposite of their 1980’s counterparts in that they fervently believed in Chinese medicine.

Now, we must be careful in defining Chinese medicine in this section. I realized that asking respondents in each decade if they prefer Western or Chinese medicine was a poor question, because as explained in history, Chinese medicine has been redefined so much that what is considered Chinese medicine may not be what someone considered Chinese medicine 70 years ago. Note, in the 1990's, Chinese medicine went through a scientific phase where 4-5 tenets were chosen to be evaluated and followed and the rest were thrown out. In the 1980's, Chinese medicine was very much Westernized when the board exams favored the Western educated physicians who practiced cook book Chinese medicine methods sprinkled through their practice. This new group of immigrants focused on two main aspects of Chinese medicine. When I said Chinese medicine to them, they think of bitter dark herbal brews, shaman, pulses, chis, and spiritual traditional medicines so stereotyped in novels. Currently, Chinese people follow a medicinal system called "Yao Shan" literally meaning diet medicine. The Chinese are switching more and more to a medicinal and functional foods system rather than relying on brews and older doctors. What they are practicing now they do not consider Chinese medicine, but when one checks the original Chinese medicinal systems, medicinal foods are very much traditional Chinese medicine. It is not the entire Chinese medicine, but it is one of the salient tenets that has managed to outlive the rest of the other tenets thrown aside by political regimes. The two main parts of Chinese medicine now is split into herbal medicines, which people still take for serious maladies and medicinal foods which Chinese people try to incorporate every day in their diets to prevent illnesses. In other words, Chinese people are using a blend of Chinese medicinal foods to prevent illnesses, while using a blend of Chinese herbs and Western medicines. This is the concept of medical pluralism. Two medicinal systems not necessarily fusing but being used side to side by patients; patients use both systems at the same time and the systems are not mutually exclusive.

Although the newest Chinese immigrants say they are more into Chinese medicine, I argue that they are not necessarily more knowledgeable than their 1980's and 1970's counterparts. With the economic boom in China, social media has also taken over everyone's lives

and forms of communications. There are now hundreds of health blogs and health articles in newspapers. With the increase in chronic diseases and the rapid pace of life, Chinese people are always scanning and hungrily trying to find the best cures through a bombardment of various media. Most of these media have very little scientific support, but are very popular. If I thumb through a Chinese newspaper here in Atlanta, I can guarantee some interesting health facts everyday with some being so strange that it is amazing that people would trust it and believe it. This means that although there is a lot of resources out there, no one really has a stable answer for a disease. For example, if I asked the question of what foods are good for anemia, the respondent from the 1980's and 1970's would promptly say red dates, red beans, and liver. The new generation would cite, "red dates, apples, raisins, cinnamon, brown sugar, ginger, etc" but would quickly add that they have not tried these but rather have heard of their efficacies. The older generations thus have less responses but are surer about their medicinal foods while the newer generation has lots of information but few say they have trustingly use them.

Chinese people during the 1970's and 1980's also use less Chinese medicinal tablets than their 1990's counterparts. For example, if I asked a respondent what they would take for a fever, the 1980's and 1990's counterparts would cite a couple of medicinal foods, Western medicines, and plenty of sleep. The 1990's counterparts would cite a Chinese pill of which they are not even sure what the ingredients are. They are more likely to use these complex pills, some I have seen before where the ingredients list forever. So the new generation prefers pills for convenience but are not necessarily sure what they are ingesting. Xiao Dong Mei immigrated to the US in 2002 said,

"Oh, I would use ying xiao pian for that of course (fever)!.. no, I am not sure what's in it, but it works well. My mom doesn't like these pills as much but among my friends, they are a better option than brewing those bitter herbs! They are fast and work almost like Western pills. It's like taking the good stuff from the nasty drink and putting it into a pill..."

As seen in Tables 7 and 8, most medicinal foods had record high usage among the three generations during the third wave of immigration. Medicinal foods were used less in the 1970's due to a lack of access, and they were also used less during the 1980's by the Chinese because of the nationalist political problems. However, in the 1990's beyond, especially in those who immigrated after 2000, there is a noticeable increase in the usage of medicinal foods, some that were barely reported in the 1970s. The one medicinal food that I noticed was increasing a lot in the Chinese 1990 group was the usage of more fortifying foods for periods. Compared to the Taiwanese, they reported more taxa used for menstrual cramps (5 compared to 3). This was surprising to me since in table 6b, the Taiwanese and Chinese reported very similar number of taxa used for similar illnesses, but the one category where Chinese immigrants reported more was in the menstrual section.

The section that had the highest reported medicinal use was treatment for yang poisoning; that is, there was a higher number of reports for both Chinese and Taiwanese for yin tonic foods than other medicinal foods. In this respect, both Chinese and Taiwanese agree that, according to Ivan Tu a Taiwanese immigrant who states,

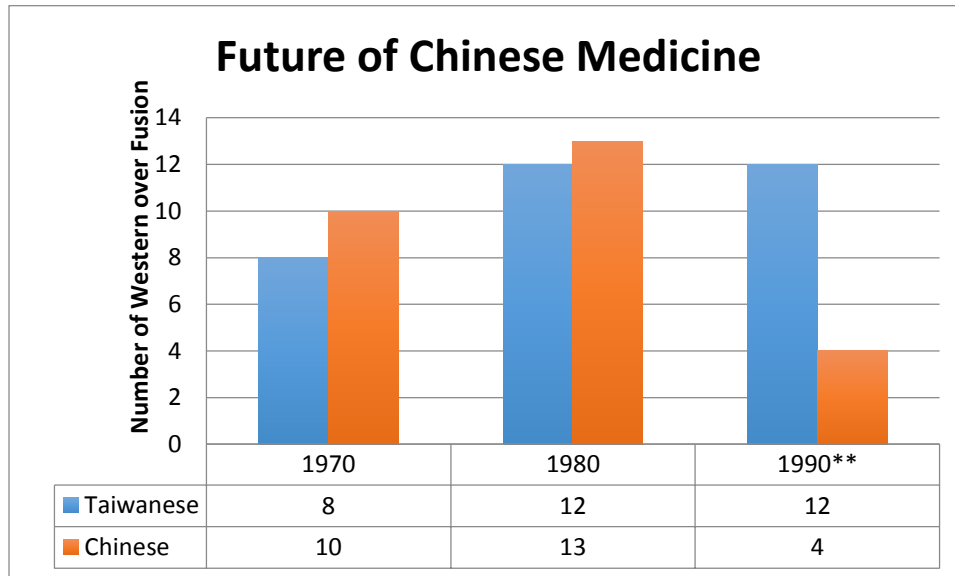
“There are more and more needs for yin foods because of the food that is available to us now compared to our parents. It used to be taking cooling foods in summer to counteract heat poisoning and opposite for winter, but now even during winter time people are having heaty problems. It's because of the globalization of fast foods, many of which are heaty that young people regardless of season are always heat poisoned.”

It can be said that both nationalities from this era agree that more and more fast and convenient foods have affected their diet so that it imbalances their chi system. The Taiwanese naturally have higher numbers of reported uses because of their tropical situation where there is an abundance of heaty fruits and a matching scorching climate. There are less reported yang foods even though they are taken in the winter, because

many people feel that they have too much yang in their bodies already due to climate and foods around them. For example, students from a university are most likely to report sore throats, pimples, dryness, constipation, swollen gums, and may attribute these to a cold, when in truth these are heaty symptoms that can be remediated through yin foods. Having a younger generation being more aware of the heat and cool chi system is beneficial so that they not only transmit this medicinal belief but also it can teach other medicinal cultures about an illness that may not be remedied through a cough syrup.

Future of Chinese Medicine- Perspectives

Chinese and Taiwanese immigrants had very interesting views about the future of Chinese medicine in their homeland and here in the United States. Every generation decade had differing answers and reasons for their beliefs. The most interesting part I found was the beliefs among the newest generation, that is, those who migrated to the US after the 1990's. Most decades did not differ much in their opinion of the future, as shown in p values in Tables 4a and b, but there was a significant difference in those of the third group ($p=0.0225$). The results can be visually seen in figure 9. The open ended question was "What do you think is the future of Chinese medicine?" All immigrants framed the question in terms of what Chinese medicine's future would be in their home countries. No one said that Chinese medicine would someday be the prevalent form but rather the answers, spanning across all three generations, were either a fusion of the two or domination by Western biomedicine.



First Generation Responses on Future of Chinese Medicine: A Blur or a Loss?

Among the 20 Chinese participants in this generation, half of them believed that Chinese medicine will fuse with Western medicine and the other half believed in a prevalence in Western medicine. Among the 20 Taiwanese participants, 12 of them believed that there would be a fusion of both systems. I found the reasons why the most intriguing as they touched on some points that I myself do not know how to answer, and realize that only time can tell.

For those that said Western medicine would prevail, their reasons included convenience, blur of Western and Chinese medicinal differences, and loss of heritage. Some participants felt that in a world where people do not have time, brewing bitter concoctions take too much time. Indeed, many of these herbal prescriptions from the doctor must be brewed and cooked for days, and sometimes they require special maintenance such as constant fire, specific temperature range, order of ingredients added, etc. In other words, they used the Chinese word “ma fan” meaning troublesome and burdensome. They see the future of either herbalists brewing medicines ahead of time and putting them into bottles or people switch over to Western medicine. What is interesting to me is that, all informants in all generations always started answering this question confidently but ended the discussion with questions that they never thought of. Many of them said at the end of our interviews that they thought the interview more interesting than they had anticipated because we had touched on and exposed some issues that they considered.

In this instance, for those who said Western medicine would prevail, started voicing questions of doubt and confusion. If the medicines are kept in bottles, then all medicines would have to be the same. Every human body is different and thus, an encompassing concoction would not necessarily help every person, and not to mention, the idea of depersonalizing a medicine is a very Western concept. One informant said, that is the problem with Western medicine

“...it very impersonal and assumes every person is the same and thus one cold medicine can cure everyone. And while it is sad that we are getting rid of the personal, perhaps that is what the world is shifting to... the impersonal.”

I found those words striking, especially when another informant voiced his opinion of large companies bottling up vials of already pre brewed ginseng and other great herbs and said,

“the younger generation may not feel the difference, but we older people who have lived through Chinese medicine and taste these new vials... we can taste the weakness of the chi, the time that has eaten away its quality and strength.... It is not the same...it’s like drinking some coca cola form of Chinese medicine”

Although these informants voiced regret that a part of their culture is changing, they at the same time were optimistic that Western medicine would indeed prevail since the way of life in China and Taiwan is now different. Times have changed, and people must indeed change.

The other group of people who believed that there would exist some fusion had similar opinions about the changes that would occur in Chinese medicinal procedures. Some informants said that Chinese and Western medicinal systems are already beginning to work in harmony such as Chinese hospitals incorporating X rays and other technological evaluation methods before prescribing and diagnosing a blend of Chinese and Western medicine. For example, if an X ray showed weakened bone fragments, the diagnosis would be a Western one: You have arthritis. However, the prescription may be a blend of Western biomedical inhibitor-enhancer action type of drug, calcium supplements, and medicinal food. As mentioned in the medicinal food section, this could include increase in tofu intake, vinegar and bone soup, or bone stew. The Chinese believed that vinegar can leach out calcium in the bones and thus the

consumer would take in the calcium in the soup. Thus most illnesses or afflictions in some hospitals are already treated in this format, blending Western and Chinese diagnostics and prescriptions.

Others say that both systems will exist, but describe it in a more medically pluralistic sense: they believe the two systems would never fuse because they are too different. Indeed, one system treats to the symptom, not taking account personal differences, while the other system relies of an energy balance system taking huge measures to prescribe different medicines based on every different individual. Some said they believe a good doctor should be knowledgeable of both systems but good medicine should stick to its own system. A western doctor should still specialize in Western medicine and a TCM doctor should stick to his traditional medicine. A blending of both would make the treatment actually weaker because the doctor himself has a diluted mixed of sense medicine and would not give a strong enough diagnosis and prescription.

For example, if a Chinese patient complained of a sore throat, phlegm, fever, dry throat, rash, and constipation, both medical systems would give very different diagnosis. The biomedical doctor would perhaps say the patient is suffering from a cold, possibly allergies, or some type of pathogenic invasion. He would then give antibiotics to rid the body of the vector. The target is an outside source; the body must be protected. The TCM physician would say that there was an imbalance of chi, in this instance the body has “shang huo”, or too much heat and he must take more cooling foods to bring down the excess heat. The physician would restrict a diet of fried, baked, spicy, and other hearty foods while increasing intake of pears, vegetables, and certain fruits which are considered cooling. The target in this case, is the homeostasis of the human body or an inner problem; the body must be strengthened and

balanced. While the biomedical doctor would concede that a good balanced diet would ensure a speedy recovery with antibiotics, he may not accept the idea that the body can take care of the vectors itself because the invader is still in there and not destroyed. The Chinese doctor would be appalled at the idea of taking antibiotics. Some Chinese informants believed that the Americans over prescribe high and powerful medicines that are double edged swords of both wonder and poison. Western medicines are associated with poison with all of its side effects. While a Chinese doctor would suggest a change in diet to counter balance these homeostasis upsetting side effects, he is wary because he does not know the drug herb interaction between certain compounds.

Another group of people in this section who also began to question their own beliefs voiced the idea of the blurring lines between the two groups. Biomedicine seeks to find the active compound in Chinese herbs, shrinking and concentrating them into pills for a more potent and convenient delivery. One Taiwanese informant, Mr. Joseph Hsu said,

“That’s the problem. When you take Chinese herbs and extract them or concentrate them and put them into pills, is it Chinese medicine anymore? Sure the compounds are there but is the magic still there? Could it be that medicinal systems are different because of rituals such as the procedures and formalities? If that’s the case then, Western medicine does an injustice to almost all indigenous medicines out there... taking their meds and putting them into pills and taking away culture...”

I found that answer striking because I had never thought of it that way. When an indigenous plant is concentrated into a pill, is it now a Western medicine or is it still Chinese? Pills are usually a Western thing because Chinese medicine requires so many elements in preparation that mixing pills of various plants is not the same as drinking a concoction of them. He also brought up an unsettling idea

that I had in my mind but never solidified until now: the idea that although we seek to concentrate and find these wonderful compounds into pills, are we also concentrating and shrinking cultures into our Western culture?

Nowadays, younger generations prefer Western medicine and very few learn the art and knowledge of the medicine men in their tribes. The pills are more convenient and the two steps are literally popping the pill in your mouth and drinking it down with water. It is a stark contrast to perhaps the hymns, chants, magic, brewing, wisdom, spiritual, and timely traditional process that most medicine men take. I think of the videos I watched in my anthropology courses of wizened old men and women with their thousands of herbs and knowledge they store in their minds. Their age already speaks of a culture already dying and that even if the medicinal recipes were put into book format, there is still a loss of “touch.” This touch is a personal involvement in which the healer knows the patient socially, mentally, holistically, and can sense what personal medicine can heal them. A book is already depersonalizing. How would you sort the medicines? By illness? By personality? How a book is categorized also show the future of where that medicinal system is heading. The idea of already putting medicines in order based on symptoms is a Western concept; treating to the symptom. Would the books themselves be gone someday in replacement with pills and other convenient medicines? I do not know, and neither do my informants as we shared our thoughts and ideas.

Second Generation Responses on the Future of Chinese medicine: Inevitability

While there was no statistical difference between the Chinese and Taiwanese in terms of what they view as the future of Chinese medicine, there were more people in each group who believed Chinese medicine in the future would be secondary to Western

medicine. While I found all generations interesting and fascinating in their culture and ideas, this thesis centralizes on this second generation which I have termed “the hole.” I found the responses of this generation for this topic interesting, because Chinese immigrants during this era went through a time of disbelief and distrust in traditional Chinese medicine. They were an impatient bunch who gave very curt and black and white answers to my questions. There was a statistical difference between the Taiwanese and Chinese immigrants during this period out of the 6 categories involving traditional Chinese medicine. Taiwanese were more likely to prefer using both TCM and Western medicine over Western medicine, more likely to believe in yin and yang chi, believed blood had to do with yin and yang, believed TCM was more suited for blood disorders than Western medicine, believed that bone disorders were correlated to yin and yang, and more likely to believe TCM was more suited to treat bone disorders rather than Western medicine. What was interesting was that despite their own distrust in TCM, the Chinese group had roughly the same number of those who believed that the future would be a fusion of both the Western and TCM systems. There was no statistical difference between the two groups on the future of Chinese medicine.

The reasons why either group said they believed TCM would be secondary to Western medicine is varied. Many of these Chinese and Taiwanese immigrants came from large urban centers, which may have explained the decline in the usage of TCM and home remedies that incorporated yin and yang. The overall consensus was the TCM faced challenges such as lacking tangible scientific results, loss of traditional knowledge among younger generations due to cultural changes, popularity of Western medicine and modernization among Chinese people due to recent economic changes, and having access to trustworthy sources of herbal

products. Also, all Chinese immigrants in this generation group were scientists, most of them had upper degrees in biology and chemistry. Some said that they had witnessed the scientific reasoning behind Western medicine and they found it hard to believe that Chinese medicine could gain the same respect. To them, if the Chinese medicinal system did not come up with a systematic pragmatic system soon, it would be inevitable that it would fall behind Chinese medicine.

However, as echoed by the earlier decade, I myself am not sure if the Chinese medicinal system would ever come up with a system that would parallel Western demands. Even science itself is a Western concept, and the Chinese medicine has existed in a complex jungle gym rather than a step by step hypothesis for thousands of years. What we may term as complete nonsense in the Western field, may make perfect sense to the Chinese, and the methods that biomedicine puts to test CAM may seem ridiculous to the Chinese. Perhaps it should be evaluated in its own system; and here draws the fuzzy line for all indigenous systems: how do we evaluate them? Chinese medicine has spiritual connections, chi, heat, cold, temperature, herbal medicines, and so many various intangible parts that we call placebo, but may work very well for the Chinese. We may never know because as stated, the elders who harbored the web of knowledge have mostly passed away or have gone into hiding, and the current physicians in China who practice both Chinese and Western medicine have watered down versions of the original text. It would be difficult to now trace Chinese medicines' roots and true intentions.

When asked why they think the future is still promising for the fusion or existence of TCM, many believe that the future Chinese generations will be more prideful and understanding of Chinese medicine. While they themselves don't believe or trust

Chinese medicine, they said that many Chinese hospitals in China are already fusing the two methods together. As voiced from the generation before, the X ray technological type diagnoses and then use a combination of Western and TCM therapies are a popular and common type of practice in most hospitals. Many of the interviewees seem ambivalent or uninterested about this question. Some of them said, “I wouldn’t know much about this topic, nor would I really care to know. I don’t see myself living in China in the future, so I don’t keep up with their happenings much there...” The Taiwanese are also similar; indifferent and uninterested in this topic. Both groups had an increase in those who believe Western medicine would be the primary medicinal system.

Both groups also were not interested in passing on any Chinese medicinal knowledge to their children. Most of the children from this era are around my age and thus in my previous study, I threw out the data on my American born counterparts because they really did not know much about medicinal foods. Although they kindly offered to ask their parents, even their parents who migrated during the 1980’s gave very curt and short answers. The international students however were more likely to cite medicinal foods, but as noted previously, they tended to give foods that they had heard or read about on social media. Compared to their parents, their answers were not as certain while their parents’ responses, although a shorter list of medicinal foods, were tried and true remedies. Thus it seems that this generation of immigrants were not only tight lipped about the future of Chinese medicine, but it seems that their children were not endowed much with any traditional medicinal culture.

Third Generation Responses on the Future of Chinese medicine: The Tried and Seen and

The Trying and Unseen

The third generation was the most interesting to me in this topic of the future of Chinese medicine. While in years past, there was a decrease in both nationalities of those who believed that there would be a fusion of both systems, there was a surge in Chinese immigrants of those who believed that both systems would reach a new equilibrium. Not only that, there was a statistical difference between the Taiwanese (8) and Chinese (16) on this matter. More and more Taiwanese people are saying that they believe that the future of medicine in Taiwan would shift towards a more Western model, while there was an increasing number of Chinese who believed that there would be a fusion.

“We’ve tried to make them fuse, but in truth, they can’t fuse. Western medicine is faster and more scientific and thus it’s winning over the newer generations... I think it’s because Taiwan has been exposed to Western culture longer and we’ve had a longer run in trying to make both work and we have seen the cons more than the Chinese have.... They are just waking up to a new revival and are super optimistic they can revive something that is in truth dying.”

These were the words of a Ben Lee, a Taiwanese immigrant, when he was asked what he thought the future of Western and TCM would be. Ben Lee voices many of what other Taiwanese are saying: they believe that Chinese medicinal practices are dying but the compounds will continue to live on. Many Taiwanese immigrants in this era believe that Chinese medicine will be shrunk into compounds and then pills and thus Western medicine will take over. They also believe that with the rapid improvements in Western technology in genetics and pharmaceuticals that Chinese medicine has a lot to catch up. While they believe that Chinese practices such

as brewing herbs, Chinese shamans, and many of the traditional practices to be dying, they acknowledge that the Chinese herbs can still play a part in chronic disease. Taiwanese and Chinese people alike turn to Chinese herbs for preventative measures. Suting, a Taiwanese immigrant explained,

“We turn to Chinese medicine and its foods because there are less risks and they are mre gentle. Western medicines are both powerful in bad and good ways. Where there are good effects, there are also bad effects. Same thing as foods, too much of something and it’s bad. But for medicines because the compounds are concentrated, you get a stronger dose of bad and good. So, we don’t’ bad side effects and thus we take herbs and teas....”

It is these words that leads to the reasonings behind most Chinese people when they are asked why they believe that Chinese medicine will make a comeback. Many say that in the past China was trying to advance and modernize itself so it had to toss out old beliefs and incorporate new ones in order to advance. However, now that the people have tried the new and seen its benefits and cons, they can now look at their own system and take the pros of both systems and use them both. Also, many Chinese people believe that younger generations are also exposed to more beliefs and media and thus can be more open minded about incorporating various systems. Thus, Chinese immigrants are more hopeful about the return of Chinese medicine being a big integral part of the medicinal system; that is, the herbal medicines, chi system, Chinese TCM doctors, etc would come back to China. Others are not so sure; they think it is all a confusion and that true Chinese doctors would not come out for fear of exploitation. No one is sure who knows real Chinese medicine anymore because original texts and elders had been banished and destroyed years ago. A shaman cannot just go to a school and train

but must learn from an elder who is selective on a small group of active disciples. Thus, Chinese physicians may have a hard time making a comeback due to lack of mentors in the first place. Still, various Chinese people are hopeful for the return of Chinese medicine. This group was more nationalistic and prideful of their government and nation, possibly because of the upward economic mobility of younger populations.

Thus, I have labeled the Taiwanese in this group as the tried and seen group because they had been exposed to Western culture more during the 1980's and thus are aware of the problems faced by Western medicine. The Chinese, who recently started incorporating more Western culture into its country, are the trying and unseen because many of them are still hopeful that there is a way to fuse or have Chinese medicine become a large integral part of the medicinal system. The future is unseen and it is difficult if they will have the same views as the Taiwanese in a few years when they have seen the same difficulties or if the new generation can muster enough national pride to push for deeper understanding of Chinese medicine to revive it. It is an interesting time for this new generation, for the history and future of Chinese medicine crucially rests in their hands. Time is running out if they wish to record any information from an older generation of masters and mentees before they pass away, taking away a way of life that future Chinese may never know.

Concluding Remarks and Implications

Why is Understanding Chinese Medicine Important? Cultural Competency

Oftentimes, Chinese people will merge introduced Western ideas with their traditional cosmology rather than accepting one system and rejecting another (49). For example, hot and dry foods may be linked to foods that are high in nutrition and cold and wet foods as those of less nutrient density (49). Foods that are high in ‘vitamins’ were deemed to be good for tonics. They have merged the materialistic ideas of Western nutrition with the Chinese system of emphasizing energy effects of foods (49). This is important because as immigrants migrate to Western nations such as the US, it will become necessary for them to merge or blend their medicinal systems with their surroundings.

The cultural competent health field has emerged, because professionals recognize that there is a need for a health care system that acknowledges and incorporates the importance of culture, cross cultural relations, expansion of cultural knowledge, and adaptations and resources to meet culturally unique differences (49). There are health disparities among ethnic groups due partly to variations in patients’ health beliefs, values, preferences, and behaviors (51). There are variations in patient recognition and explanation of symptoms, thresholds for seeking care, ability to communicate symptoms to a provider who understands the cultural meaning, and expectations of care (52). These factors can influence patient and physician decision making and dynamics between the patient and health system, thus contributing to these disparities in healthcare (50-52). Culturally competent systems are aware of integration and interaction of health beliefs and behaviors, epidemiology, and treatment outcomes for different patient populations (50). Provider-patient communication is directly linked to patient satisfaction, adherence, and subsequently health outcomes (49).

When there are cultural and linguistic barriers that negatively affect communication and trust, this leads to patient dissatisfaction, poor adherence, and thus poorer health outcomes (52). When providers do not take social and cultural factors into account, they may resort to stereotyping which can affect their professional behavior and decision making (52). This may lead to biased or discriminatory treatment of patients based on their race/ethnicity, culture, and social status (51-53).

Older generation Chinese immigrants often came to the US with strong cultural values, beliefs, and traditional health practices intact, which caused many to be apprehensive with Western concepts, terminology, diagnostics, and treatments (53). Some of them came to the US with a background of using Western medicine and thus had no problems assimilating to their new medicinal environments, but others had a difficult time communicating their health preferences to their allopathic practitioners. There are not many Chinese physicians in the United States and most Chinese immigrants' health treatments were and continue to still be in the form of home folk remedies followed by a combination of Western and Chinese medicine. There was a lack of culturally competent services for Chinese patients and thus this presented challenging problems to health care providers (53). Although there have been improvements in incorporating CAM into the US biomedical system since the 1990's, there is still a lack of recognition and understanding of TCM practices and other domestic healthcare practices among allopathic practitioners. Thus, older Chinese immigrants and even newly immigrated ones are wary of disclosing cultural practices to their providers (53).

Although the WHO has continued to support traditional medicine since the 1970's, the strained institutional relationships between both traditional and allopathic healthcare systems have caused implementation of complementary medicine with allopathic

medicine to be challenging to most nations (54). Societal barriers to intercultural healthcare include low general acceptance by biomedical healthcare providers, issues regarding safety, efficacy, quality, and rational use of traditional medicine. Not everyone agrees on the role of both medical systems; some debate whether they should be integrated or rather allowed to co-exist. This co-existence is termed medical pluralism, addressed in the next section. Some experts contend that perhaps traditional medicine should be evaluated within its own framework rather than approved and subdued by rules of allopathic medicine (55). Indeed, I personally wonder if the biomedical practices we apply to all scientific discovery is a Western concept; biomedicine itself is a culture and we apply this culture to some medicinal systems that have parts that do not exist in Western medical terms. The system of chi does not exist in biomedicine, for example, and certain words do not exist in translation to English. These theoretical debates made by biomedical and traditional scientists are actually sharp in contrast to its reality in the daily lives of most people, who often use and view both medical systems as complementary rather than being mutually exclusive (55). Also, in Chinese culture, health is viewed as a family coordinated activity rather than an individual responsibility. Older Chinese patients will rely on their social networks and share knowledge and home remedies rather than seek health providers for health information (56-60).

Medical Pluralism in the United States among Chinese Immigrant Chinese patients

Chinese immigrants are the largest foreign born Asian subgroup and thus it is important to study the health preferences of such a large group. Many Chinese believe that TCM treats the underlying causes of disease, leading to more permanent cures or long term remission compared to biomedicine. TCM is seen as more effective than biomedicine for managing chronic illnesses, with clinical

trials showing benefits for acupuncture and herbal treatments for a variety of clinical problems such as pain, irritable bowel syndrome, cardiovascular diseases, and dermatologic conditions. Biomedicine is generally viewed by Chinese as more effective in acute situations such as surgery and treatment of infectious diseases (61).

Most Chinese immigrants will use home remedies to treat illness symptoms before seeking professional care. They will usually brew teas and consume medicinal foods to restore the balance of chi in their bodies. Most people do not want professional intervention because they believe the medication is too powerful and do not want the adverse side effects (61). Thus, they are more likely to try home remedies which are usually TCM. These remedies are seen as gentle and although they take a long time to work, they have less side effects. The Chinese believe that the potency of a medicine also positive correlates with its potential for adverse effects. A very powerful medicine will also have very powerful side effects. TCM while slower and takes longer times for its efficacies to work, its parallel in low adverse effects makes it a popular choice of treatment option among Chinese immigrants (61).

Rise of TCM in the United States

TCM was exclusively practiced in China and other parts until forty years ago, when President Nixon visited China and was impressed by the medicine. Before that, Chinese medicine had already impressed the Western world as early as the late 1600's to late 1700's when the French Jesuit missionaries visited China. These missionaries attempted to understand the medicine and bring the ideas back to Europe but due to their limited understanding, practices in Europe did not change much (62). The exchange however,

continued through the 1830's and 1840's when European and American medical journals published papers about TCM through Western physicians who had traveled to China. These physicians praised the Chinese doctors for their extensive knowledge of pulse taking and herbal remedies, but they were unimpressed by the Chinese doctors' seemingly lack of human anatomy knowledge. Thus, TCM was deemed as "unscientific." (62).

Chinese medicine made its way into the US when Chinese immigrants arrived to work on the railroads in 1800's. Since the Chinese were racially discriminated, their medicine was not popular until the civil rights movement of the 1960's (63). The popularity of Chinese medicine did not fully take off until President Nixon visited China in 1972. The interest was fueled by his experience with the American journalist James Reston who suffered from appendicitis in China a few months before Nixon's arrival. Reston was successfully treated by acupuncture and Chinese herbs for post operative pain. Before this event, Chinese medicine was provided by Chinese immigrants for other Chinese immigrants, but once Nixon and Reston publicized the event, it piqued the curiosity of the mainstream American public (64).

Implications and Conclusions

Chinese medicine, and CAM in general are becoming more and more popular in the United States(65). The reasons why patients turn to CAM is varied but some point to the idea that biomedicine may be failing on the physical and emotional level. Recognizing and addressing these weaknesses can be useful to improving biomedicine and bioethics. (65) While medical pluralism

still exists, there is also a new hybridization that exists with the Western and Chinese medicinal models. Because both are merging into a wellness model using diet as remedies over medicines, a hybrid model is emerging that is important to study under the CAM field.

One of the main reasons why people continue to use or turn to CAM is because they feel that their symptoms and illnesses are not being adequately treated by conventional medicine (66). Also, even if the patient's illness can be treated with conventional medicine, a mistaken diagnoses or harmful treatment from the physician can send the patient searching for other options. The best example of this is cancer or any strong prescription drugs that cause side effects (67). Most Chinese people cite this as the main reason why they wish to use Chinese medicine in conjunction or in substitution for biomedicine; they do not want to experience the side effects that come with some medicines.

Physicians and patients may not communicate sufficiently or specifically about the use of CAM therapies. Many Chinese Americans in past studies appear to be using TCM with no supervision by either a biomedical doctor or a TCM provider. Patients say their doctors do not ask them about their CAM use, or they fear disclosing the information will lead to discouragement or censure by their physician (67). Some health professionals feel insulted and distressed when patients seek or use other cures or therapies, often dismissed as "folk medicine." Not all alternative healing systems are ineffective (67). Often biomedicine and CAM are not viewed as mutually exclusive endeavors. No matter how acculturated a person appears, at times of great stress, such as illness or death, early learned ideas resurface and structure responses (67). It is important for physicians to have some basic understanding of these therapies

because it can affect the treatment outcome if combined with another treatment. For example drug interactions can affect the outcome; many herbs have unknown chemicals that may react with medications provided by doctors that can adversely affect the patient. Although it will be a while before research has thoroughly understood and isolated specific compounds in these medicinal herbs, it is important to disclose the information to the physician. The potential for overdose, improper use, and drug interaction are real (26).

Cultural competence is important in the United States, especially with an increasing immigrant population that carry with them medical pluralistic health behaviors. Many negative aspects such as patient noncompliance, treatment failures, and even treatment outcomes can be attributed to underlying cultural differences. When the basic belief structure of biomedicine and another set of health beliefs differs radically, problems and frustrations almost inevitably arise. For example, patients might be described as noncompliant by physicians, when in fact, the patients are following the rules, but rules are based on a different set of principles (26). Perhaps a patient does not follow a complete regimen due to cultural differences in beliefs, or a treatment outcome comes out differently because the patient did not disclose they are using various other medications along with the prescribed medication. Perhaps some medications are not taken due to different viewpoints by the patient on how the medication may affect their body.

Many Chinese immigrants believe that biomedicine while powerful has also powerful side effects, and thus may either choose not to take the medication or supplement it with herbs that may detox or help out the side effects. The Chinese believe that everything comes with a balance; a medicine's power to heal is also paralleled with a power to harm. Powerful medicines also have powerful potential to harm. These actions may decrease the efficacy of the prescribed medicine and thus have different outcomes than expected

by the physician. It is important that physicians in both TCM and biomedicine work together, because they both have their own benefits. Many people expect biomedicine can treat and cure every disease and symptom and do not realize that there are many unknown realms researchers have yet to understand (68). TCM can thus be used to fill in these unknown gaps by providing better treatment than biomedicine for some of these conditions, especially chronic illnesses.

Immigrant studies are very important to public health as many migrant populations still rely on traditional knowledge of herbal remedies and medicinal foods for the management of their health. As can be seen in new generations, TCM is shifting towards a medicinal food framework and belief in chi system is as strong as ever. It is projected that by 2050, ethnic minorities will comprise the majority of the U.S population (73). From a healthcare standpoint, addressing the health needs of such an increasingly diverse population has become an increasingly visible public policy goal (74). Every culture and patient brings their own cultural beliefs about symptoms and underlying causes of illnesses, and preferences for treatment (75) that may include medicinal plants from their homeland. As can be seen by the 120 interviewees' current and future perspectives on health, there is a shift towards a mixture of Eastern and Western medicine compared to the past where the majority of the treatments were one or the other (76). How a physician reacts to traditional beliefs of a patient can greatly influence the quality of the clinical encounter. Physicians must be ready to understand the diverse commonly held folk medical beliefs in a community they work with, as well as employing non judgemental inquires into their patients' choice of staying with ethnomedical beliefs and behaviors (77).

From a cultural standpoint, TCM is important in maintaining the Chinese and Taiwanese communities' cultural identity. For older generations especially, TCM has always been a part of their lives, and thus continuing TCM in the United States and passing on the knowledge to their children reaffirms their heritage and identity. Most of the interviewees that I spoke to, say they try their best to incorporate Chinese medicinal foods in their children's diets so as to educate their children about the health knowledge and values that are deeply rooted in Chinese culture (78). Certainly, the responses among the younger generation show that maintenance of Chinese culture is as important as ever. For those who were born in the United States, they can learn from their migrant peers and reaffirm their national identities. TCM is regaining popularity in an approachable and understandable form- it fits the current popular Western model of wellness and thus has regained the popularity it lost during the 1980's when many Chinese migrants discarded TCM's teachings for biomedical beliefs.

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