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Contextualizing Obesity among Latino Farmworkers:
A Critical Analysis of Structural and Cultural Processes
Affecting Farmworker Health and Nutrition in Central Florida

by

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A thesis submitted in partial fulfillment of
the requirements for the degree of
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Abstract

Migrant and seasonal farmworkers play a critical role in the U.S. economy, producing food for the American public, while their suffering is often rendered invisible by their existence on the margins of society. The low wages associated with farm labor combined with the largely undocumented status of this population severely limits access to food, housing, and health care, resulting in poor health outcomes. Through the use of a critical anthropological approach, this research examines the social, cultural, political, and economic context of obesity among Latino migrant and seasonal farmworkers in Central Florida. Ethnographic research methods were used to explore perceptions about the relationships between the body, food, and health among Latino farmworkers, contextualizing these cultural beliefs within the broader, macro-level factors affecting health, including immigration, agricultural, and economic policies. Furthermore, this study compares the perceptions of farmworkers with those of healthcare workers that serve this community, examining the implications that conceptions of culture and “cultural competency” have for developing health interventions.

The findings of this research reveal that, in contrast to the beliefs of health providers, farmworkers do understand the relationship between health and body size, and do not show preferences for overweight or obese figures. Conceptions of food, on the other hand, differ somewhat from those promoted by U.S. nutritional guidelines, and

farmworker interviews indicate an interest for more nutritional information. This suggests a need to develop nutritional information that is culturally relevant for Latino farmworkers. Additionally, however, economic constraints significantly limit farmworkers' abilities to purchase sufficient and nutritious foods. The combination of economic constraints and varying nutritional knowledge has significant health implications for farmworkers, most notably in terms of the connection to diet-related health problems such as obesity. The implications of these findings indicate that nutritional interventions focused solely on education without addressing the economic and political processes that constrain farmworkers' agency will have little overall effect on the health of this population. This research, therefore, emphasizes the importance of using a holistic approach to understand the complexity of health and nutritional issues among farmworkers.

Introduction:
Contextualizing Obesity among Farmworkers

Farm labor is a very common form of employment for both documented and undocumented immigrants coming from Mexico; it is also one of the most dangerous occupations in the United States. Issues affecting farmworkers have become popular topics of study by applied anthropologists and other health researchers in recent years. A substantial amount of research has examined the health risks and dangers specifically connected to agricultural labor, barriers to accessing health care among this population, and the poor health outcomes that result (Holmes 2006, 2007, Halfacre-Hitchcock et al 2006, Arcury et al 2005, Larson 2000, Arcury et al 1999, Harthorn 1998, Quandt et al 1998). Poor access to health care has been particularly well-documented, with research emphasizing lack of time, money, transportation, education, language differences, limited duration in the US, unfamiliarity with the US health care system, lack of legal status, and lack of insurance as significant barriers (Quandt et al 2007, Chacon & Davis 2006, Saint-Jean & Crandall 2005, Fix 2005). Among farmworkers, there is typically little flexibility to take time off from work for illness, injury, or even to seek preventive care (Holmes 2006). Undocumented immigrants, furthermore, often become discouraged from seeking medical and health services, particularly out of fear of deportation (Chacon & Davis

2006). As a result, immigrants tend to have lower rates of health care use, with health deteriorating the longer they reside in the United States.

The disparities that exist in both access to health care and health outcomes among this population are cause for concern from both a public health and a human rights perspective. Although agricultural work in general has a high fatality rate and high rates of injury, migrant farmworkers in particular suffer from the poorest health status in the industry, with increased rates of many chronic conditions, including malnutrition, hypertension, diabetes, fatigue, headaches, chronic pain, and anxiety, among others, as well as increased rates of acute infections (Holmes 2006). While the prevalence of these disparities is often well documented in the literature, the reasons for their persistence are typically less understood. Chronic illnesses, in particular, represent an area of growing concern among migrant populations in the United States where there is still a need for more research.

The research presented here explores issues related to obesity among migrant and seasonal farmworkers in Central Florida. This research began as a project designed to examine cultural conceptions of health, food, and the body among Latino farmworkers as they relate to obesity at the request of a local charity organization, the San Juan Mission.¹ This Mission operates a primary care clinic targeting low-income farmworkers, where the clinic's director perceived that obesity was a significant and growing problem. During the development of this project, however, it quickly became apparent that another, inter-related issue was worthy of sustained attention; namely, the perceptions of healthcare

¹ All names of locations, organizations, and people have been changed and assigned a pseudonym in order to protect the identities of research participants.

workers serving this population, who construct their own interpretations and understandings of the role that culture plays in shaping the health outcomes of socially-constructed “others.” Under this guise of “otherness,” healthcare workers construct Latino farmworkers as inherently different, possessing a culture that is assumed to conflict with the more “valid” perspectives of biomedicine. Thus, this research attempts to explore the issue from both perspectives in order to better understand the role that culture plays in the understandings of both farmworkers and healthcare providers with regards to obesity and its health implications.

Framing the Problem: Obesity as a Health Issue

Obesity has been identified as a significant and growing health problem, both within the United States and globally. According to the National Health and Nutrition Examination Survey from 2003-2004, for example, about one-third of adults in the United States are overweight, and another third are obese (National Institutes of Health 2009). Ethnic minorities in the United States are disproportionately represented among the obese and overweight: for women, the rate of overweight and obesity is 82 percent among African-American women and 75 percent among Mexican American women, as compared to 58 percent among white women; for men, the rate is 76 percent among Mexican American men and 69 percent among African American men, as compared to 71 percent for white men. Although conceptions of health are culturally-constructed, being significantly overweight or obese has been linked to a number of diseases and health problems, including heart disease, high blood pressure, stroke, diabetes, gallstones, and certain types of cancer. Since obesity has been linked to both increased mortality and morbidity rates, there is substantial reason to consider the obesity epidemic a significant

health concern. There is little research, however, examining the ways in which diverse populations understand and perceive obesity as a health issue.

Since conceptions of health and the body are culturally constructed, this study seeks to understand how Latino farmworkers perceive “healthy” and “unhealthy” bodies and foods, as compared to the biomedical model of health and nutrition. Guidelines established by medical experts and nutritionists in the United States are not necessarily familiar, relevant, or well-understood by individuals coming from other cultures. Essa (2001), for example, suggests that despite some understanding of the importance of a balanced diet, Latino farmworkers in Virginia expressed confusion over the exact meaning of a balanced diet, indicating a need for clearer nutritional information. Numerous anthropologists, furthermore, have emphasized cross-cultural variations in perceptions of ideal body size, obesity, and nutrition (Davidson & Knafel 2006, Himmelgreen 2002, Messer 1984, DeGariné & Baker 1983, Ritenbaugh 1982, Massara 1980). Although a number of studies have examined cultural and ethnic differences in perceptions of body image, the results of such research have varied considerably, and for the most part have failed to demonstrate how differing perceptions relate to conceptions of obesity. Relatively few of these studies explore body image among Latino populations in the United States, furthermore, and of those that do, most do not examine differences related to nationality or various ethnic identities within Latino populations. This research, therefore, explores issues related to body image which have been under-researched, and will also help to understand how such cultural perceptions may impact compliance with health information provided by clinic staff.

Drawing on theory regarding the political economy of health, this research also considers other factors which may affect Latino farmworkers' abilities to comply with clinical advice, and thus explores the ways in which culture intersects with socioeconomic and political structures to shape both health and understandings of the body. Several studies have indicated that poverty and low wages lead to significant levels of food insecurity among farmworker populations (Quandt et al 2004, Essa 2001, Shotland 1989). A good deal of research also suggests that food insecurity is strongly related to and affects obesity, nutrition, and eating patterns (Olson et al 2007, Kaiser et al 2004, Quandt et al 2004, Essa 2001, Kowalski et al 1999, Loria et al 1995, Shotland et al 1989). Thus, there is good reason to believe that broader, structural factors influence patterns of obesity among this population.

Research Purpose & Objectives

The primary objective of this research was to gather preliminary data on cultural perceptions and attitudes towards the body and food, and to contextualize this data with relevant socio-economic factors that may affect nutrition, eating patterns, and body preferences among farmworkers. In order to understand differences and similarities between farmworker perceptions and the biomedical model of health, this cultural data was also compared to the perceptions of health providers and established nutritional guidelines. Additionally, a second objective was to explore perceptions of local health and service providers regarding critical issues affecting this population, including the influence of both cultural and structural factors. This research process was guided by four key questions:

1. How are different bodies and body sizes perceived and conceptualized by the Latino farmworker community?
2. How do Latino farmworkers conceptualize food and its relation to health?
3. How do Latino perceptions of food and the body compare to those of clinical staff and biomedical constructs of nutrition and health?
4. What do clinical staff perceive to be the primary health issues and causes of disparity affecting this population?

Through this research, I explored understandings of food and the body among Latino farmworkers and their families, as compared to those of health providers. In addition, I also examined some of the structural constraints that limit the abilities of farmworkers to access health services and attain healthy lifestyles in order to contextualize cultural processes within the broader social, political, and economic landscape that shapes farmworkers' lives.

The intent of this study has been both to create a richer understanding of the context of obesity among farmworkers, and to assist the San Juan clinic in their efforts to develop culturally-appropriate programming. For the purposes of this particular study, I have emphasized the perspectives of women, as they are typically the ones who purchase and prepare the food for the household, although some male perspectives are also included in order to compare male and female perceptions of the body. This research focuses on aspects related to obesity at the specific request of the clinic, where they have perceived this to be a growing problem among the Latino farmworker community they serve. It is my sincerest hope that the findings I present here will help the San Juan clinic

to better serve the local farmworker population and provide more culturally-sensitive health outreach that works within the realities of farmworkers' lives.

The first two chapters in this manuscript provide a framework for the research presented here. *Chapter 1* presents a comprehensive review of the literature on key aspects of migrant health and cultural studies of the body, food, and nutrition. The chapter begins by outlining the theoretical approach used in the current study, then moves on to an historical overview of policy issues affecting migrants before delving into the relevant research on migrant health, culture, and nutrition. The contributions of anthropology are emphasized, but other research perspectives are presented as well. Next, *Chapter 2* describes the research setting and methods used for the current study. This chapter provides a background for the study, including an overview of the local farming industry and the area where data collection took place. The methodology emphasizes an integration of classic qualitative ethnography combined and triangulated with quantitative data collection and analysis, making the results useful and meaningful from an interdisciplinary perspective. A description and demographic profile of the research participants is also provided at the end of the chapter.

The next two chapters describe the key research findings and are divided into cultural and structural processes. First, *Chapter 3* examines cultural aspects relevant to the issue of obesity among farmworkers. This includes two key components: the health beliefs and knowledge of farmworkers, and the beliefs of health providers regarding the influence of culture on the health of farmworkers. Through a combination of interviewing and participant observation, I explore general perceptions of migrants, culture, and key health issues affecting the local farmworker population among local health providers, as

well as specific perceptions of health, food, and the body among both farmworkers and health providers. This analysis explores the extent to which cultural processes contribute to the high rates of obesity found among the Latino farmworker population. *Chapter 4*, then, builds upon these findings with supplemental data on the structural factors influencing obesity and contributing to poor health outcomes among farmworkers. Based on interviews with farmworkers and health providers, this chapter discusses how lack of employment opportunities, low wages, and general lack of local resources shape obesity and overall farmworker health.

Finally, *Chapter 5* attempts to tie these findings together with a discussion of how both cultural and structural factors affect issues of obesity and nutrition. This discussion connects the research results back to the literature, highlighting the ways in which the current study builds upon the previous body of research. The chapter includes a discussion of the implications that these findings have for health interventions and recommendations for action based on the research findings. Finally, this section also discusses contributions to anthropology and public health, and recommendations for future research are described as well.

Chapter 1
Exploring Issues in Farmworker Health:
A Comprehensive Review of the Literature

Farmworkers occupy a critical but precarious position in the United States. The U.S. economy is dependent upon the cheap labor of these workers, but their plight remains largely unseen, rendered obscure by their low visibility in mainstream society. The documented exploitation and widespread disparities among farmworkers have, however, received a great deal of attention from anthropologists and other health researchers. Researchers have explored issues ranging from occupational injuries, environmental health risks, labor practices and policies, and overall health and well-being. Additionally, other scholars have described in great detail the structural barriers farmworkers face in accessing health care. This chapter provides a background on structural and cultural aspects of migrant health, with a particular focus on research relevant to the current study on obesity and nutrition. I begin with an overview of the theoretical framework that has guided the current study, then move to a discussion of policy issues affecting migration and migrant health before finally reviewing the literature on cultural and structural aspects relevant to the study of obesity among migrant populations, including acculturation, cultural constructions of food and the body, and contributions from nutritional anthropology.

Critical Medical Anthropology: A Theoretical Overview

Anthropologists have used a number of theoretical frameworks to explore and explain various aspects of migrant health. These include cultural analyses examining ethnomedical systems and explanatory models of health and illness among immigrant patients (Chavez 2003, Baer et al 1998, Kleinman et al 1978), phenomenological and ethnographic accounts of migrant experiences (Heyman et al 2009, Benson 2008, Menijar 2002), and analyses of political and economic processes that shape health outcomes (Benson 2008, Holmes 2007, 2006, Hirsch 2003, Fassin 2001, Chavez et al 1992, Singer et al 1992). As a field, anthropology's most obvious contribution to migrant health has been the study of cultural beliefs and practices surrounding health among various ethnic groups. When examining issues of migrant health, both researchers and health professionals typically deal with immigrants from cultures very different from their own. As medical anthropologists are well aware, culture is important in shaping beliefs about health and illness, as well as expectations regarding the patient-healer relationship (Chavez 2003). Anthropologists have utilized their expertise to understand the ethnomedical systems held by immigrant groups and compare the beliefs of immigrants with those of biomedical health practitioners in order to understand cultural factors that affect migrant health and health-seeking behaviors.

Growing numbers of anthropologists have become weary, however, of the implications that cultural explanations of health have for migrants, particularly the misuse of the culture concept by health practitioners (Hirsch 2003). The danger of producing and promoting cultural explanations of health is that frequently health practitioners come to view culture as a barrier to health which must be eliminated. Not only does such a

perspective tend to reduce immigrant and minority groups to an overly simplified collection of cultural traits, believed to be inherently tied to a particular racial or ethnic identity, but it also tends to assume that the dominant society is somehow free of culture, as though only the ethnic “other” possesses any culture to speak of. Thus, individuals are essentially blamed for their illness, seen as the result of their cultural beliefs and practices. As Hirsch (2003) emphasizes, anthropologists must be cautious of the political implications embedded in the knowledge we generate. This does not mean that we should abandon the culture concept, however, but that we must be careful in how we use it, acknowledging both the strengths and the weaknesses that cultural explanations of health possess for understanding and addressing health disparities. Most importantly, we must be aware of the myriad of other factors that contribute to health, and the ways in which culture interacts with political, economic, and social factors, as well as the processes of migration itself, to shape the health circumstances of migrants. In recognition of the limitations that cultural explanations present in understanding health, therefore, a number of anthropologists have transitioned to examining the ways in which macro-level processes shape health. A key framework that has been particularly useful to the study of migrant health issues is Critical Medical Anthropology (CMA), an approach that draws together large-scale global processes and small-scale localized experiences in order to understand the ways in which health is shaped by these complex interactions. This approach has served as the key framework guiding the research presented in this paper.

A “critically interpretive medical anthropology” links the interpretation of local meanings and experiences to an analysis of larger social, political, and economic forces, thereby connecting micro illness experiences to the macro social and cultural factors that

influence them (Holmes 2006). Critical Medical Anthropology (CMA) problematizes biomedicine's "political, economic, and ideological dominance over rival medical systems," and over "valid" health knowledge in general (Baer et al 2003:329). CMA has, furthermore, been particularly critical of the limits of both purely biological explanations of health and disease and purely cultural explanations, pointing to complex interactions of multiple factors which affect health status and access to health care. Braun (2002), for instance, notes that ethnic disparities in health are generally addressed through either an emphasis on genetic susceptibility or an emphasis on cultural practices, both of which ignore the relationship among social conditions, power relations, and health, and as a result do little to actually change health disparities. This perspective is very useful for considering the multiple interacting factors which affect the health of migrant populations and their access to health care, as well as the impact of the power dynamics that are involved when members of diverse, non-mainstream cultural groups interact with the biomedical health system. Critical Medical Anthropologists have also been particularly interested in the effects that global market and labor processes have on health (Singer et al 1992). This is especially relevant to the study of migrant health, as migration is frequently fueled by economic conditions driven by the global market.

Conceptions of structural violence and social suffering have also become important to anthropological understandings of health disparities. These concepts have all been used to emphasize the "societal, institutional, and structural dimensions of suffering" (Benson 2008:2, Holmes 2007, Farmer 2005, Fassin 2001). Farmer (2005) notes that the poor suffer more from sickness than the non-poor, are at increased risk of both premature death and exposure to pathogens, and have decreased access to health

services. Furthermore, their agency is limited by the different systems that oppress them, including racism, sexism, political violence, and, of course, poverty. To this list we might add immigration policy, which denies immigrants the right to basic social services that are allotted to citizens. Farmer (2005, 2004) has been a particularly strong advocate of the concept of structural violence for understanding health, a term referring to the ways social inequalities become embedded within social structures. He proposes that an anthropology of structural violence draw on history, biology, and political economy, and seeks to understand how social suffering becomes muted or elided. Chavez et al (1992) have also argued for a political-economic approach, particularly for studying migrant health. They have noted the ways economic factors such as low wages, lack of jobs with benefits, and lack of government-funded or private health insurance, and political factors such as immigration policies which restrict access to social services and fear of deportation interact together to discourage immigrants from seeking health care services. Additionally, Holmes (2006) has introduced the concept of symbolic violence (borrowed from Bourdieu) to refer to the ways social asymmetries become naturalized and internalized, and as a result are taken for granted, by both minorities and the majority social class. He notes that since structural violence becomes manifest within the body, it is easily understood as natural.

Several anthropologists have examined farmworker health issues through a political-economic perspective. In examining diabetes among Mexican-American farmworkers, Scheder (1988) argues that the oppressive life conditions of migrant farmworkers, which are supported and upheld by the larger U.S. political and economic system, foster social and psychological stresses that contribute to adverse health

outcomes. This research suggests that a combination of poverty and poor living conditions, mixed with the effects of social stress caused by cultural isolation, social marginality, and racial discrimination, produce many of the poor health circumstances found among farmworkers. Holmes (2007, 2006) and Benson (2008), furthermore, examine the role that social and structural inequalities play in the suffering of migrant farmworkers. Through concepts such as “social suffering” (Bourdieu et al 2000, Bourgois 2003), “structural violence” (Singer 2006, Farmer 2005), and “symbolic violence” (Bourdieu 1998, Bourdieu & Wacquant 1992), this approach demonstrates how structural inequalities result in poor living and health conditions and disparities among migrant farmworker populations. Holmes (2006, 2007) describes how structural violence, visible as injury to both body and self-respect, is enacted through exploitative economic relations (in the case of farm labor, U.S. agricultural and market policies) and becomes channeled through racism, classism, sexism, and anti-immigrant reactions. Structural violence becomes further exacerbated by differences in access to medical care, which leads to higher morbidity and mortality rates for the socially disadvantaged. Symbolic violence, furthermore, refers to ways social asymmetries become naturalized and internalized, and, as a result, are taken for granted by both minorities and the majority social class. Thus, the hierarchical social order, established through systems of structural inequalities, becomes misrecognized as natural. Holmes notes that because structural violence becomes physically manifest within the body, it is easily understood as natural, and as a result migrants are frequently blamed for their own poor health; thus, the subtlety of racism reduces awareness of the social context that causes poor health among migrant workers. Similarly, Benson (2008:591) examines the ways in which inequalities in

power, living conditions, and citizenship “become embedded in long-standing social structures, normalized in institutions, and naturalized in everyday experience” among farmworkers. Benson argues that structural violence becomes justified in agricultural work through the social construction of farmworkers as “others,” belonging on the “outside,” and thus deserving of their living and working conditions. This naturalization of social inequality ignores the origins of structural violence within economic and labor policies and the role that growers play in perpetuating these conditions.

In conceptualizing the myriad of issues outlined above that shape farmworker health, this review takes a detailed look at the policies that have influenced Mexican migration, migrant labor markets, and social responses to migrants, before moving to a more specific examination of cultural and structural factors related to obesity.

Immigration & Economic Policy: An Historical Overview of U.S.-Mexico Relations

A study which focuses on migrant farmworkers in the United States must first take into account the history of international relations between the U.S. and countries from which migrant workers originate, most notably Mexico. Approximately 95% of migrant farmworkers in the U.S. are Mexican-origin, with the remainder coming from other parts of Central America and the Caribbean. While nonpermanent guest workers are brought in legally through federal programming, more than half of all farmworkers are undocumented (Oxfam America 2004). Immigration is currently a highly controversial and hotly-debated topic in the United States, with most of the focus on the U.S.-Mexico border. The focus specifically on Mexico within discussions of immigration, particularly “illegal” immigration, has created a racialized construction of “illegal aliens,” whereby all identifiable Latinos, even documented immigrants and U.S. born citizens, have

become targets for discrimination. In order to understand these current dynamics, and the effect they have on migrant health, this section examines the history of U.S. immigration policy and relations with Mexico, the socio-political construction of the U.S.-Mexico border, the creation of the concept of “illegal” immigration, and the social construction of “illegal aliens.”

The relationship between the United States and Mexico has, historically, never been one of equality. Following the Mexican-American War, in 1848 Mexico was forced to relinquish its northern lands to the United States, which entailed nearly half of its total lands and three-fourths of its natural resources (Chacon & Davis 2006). The migration patterns of seasonal agricultural labor now deemed “illegal” actually predate the current U.S.-Mexico border, and for decades following the war border crossing continued as an informal process (Staudt 2008). More conservative approaches to regulating the border and migration gained greater prominence after the Mexican Revolution of 1910. The United States, furthermore, continued to meddle in Mexico’s economic affairs through the end of the nineteenth and beginning of the twentieth century to ensure pro-U.S. business relations (Chacon & Davis 2006). By the turn of the twentieth century, U.S. capital controlled numerous industries within Mexico, and the resulting economic changes created mass dislocation of Mexican workers. Mexican markets became dominated by foreign producers, and small-scale Mexican farmers could not compete with large-scale capitalist farming. By 1910, 96 percent of Mexican families had become landless. Thus, the economic relationship forged between the United States and Mexico by U.S. imperialist endeavors created the initial circumstances of Mexican migration to the United States.

Additionally, the Mexican economy has been further hindered by the rise of *maquiladoras*. These factories, owned by transnational (especially U.S.) corporations but located on the Mexican side of the border, allow U.S. manufacturers to take advantage of major tax breaks and significantly lower worker wages (Chacon & Davis 2006).

Although very profitable for U.S. capital interests, the rise of *maquiladoras* has caused Mexican wages to plummet even further, about 66 percent between 1980 and 1990.

Chacon and Davis (2006:119) note, “the maquiladora industry serves as a monument to U.S. imperialism’s power to make rules solely for the benefit of corporations.” The *maquiladora* industry, and its effect on Mexico’s economy, therefore has been another factor fueling Mexican migration to the United States in search of higher wages.

Finally, the passage of the North American Free Trade Agreement (NAFTA) in 1994 has perhaps sealed the fate of Mexican migration. The agreement officially formalized neoliberal economic policies already in place, making Mexico almost entirely dependent upon the United States for trade and further fueling migration northward (Chacon & Davis 2006, Delgado-Wise & Covarrubias 2006, Kingsolver 2001). Ten years after its passage, an additional 1.3 million small-scale Mexican farmers had been pushed into bankruptcy by cheap U.S. imports, and thousands of jobs have been lost in Mexico, while U.S. corporations continue to profit (Chacon & Davis 2006). The 2005 passage of the Central American Free Trade Agreement (CAFTA) will likely produce similar results. Both agreements have been crafted under the guise that opening up trade will create more jobs and alleviate poverty, but NAFTA has clearly demonstrated the unequal distribution of free trade’s benefits, which favor the United States.

Sassen (1998) claims that migrations are neither autonomous nor random processes, but are both produced and patterned. The history of economic relations described here between the United States and Mexico has created many of the contemporary circumstances of Mexican migration, particularly migration to the United States. Immigration policy, however, has tended to downplay the role of the United States government and capitalist interests in producing current migration trends. The rise of policies regulating migration is itself a relatively recent trend in U.S. history which will be examined next.

Restrictions on immigration began in the early twentieth century with the Immigration Acts of 1917 and 1924 putting an end to what had previously been essentially open immigration. The 1924 Act in particular created enhanced procedures and mechanisms of deportation, including the creation of the Border Patrol (Inda 2006, Staudt 2008). The 1924 Act was largely based on eugenicist movements, implemented to restrict the number of immigrants from countries of “inferior” genetic stock. Although initially the Western Hemisphere was exempt from the law due to capitalist interests which saw Mexicans as an optimal workforce, by 1928 their inferior biology was seen to outweigh the benefits of their labor, and the first massive deportation campaign was initiated (Chacon & Davis 2006). During this time, forcible deportation was enacted upon at least 415,000 Mexicans, including legal immigrants and even U.S. born citizens, and another 85,000 were “voluntarily” repatriated. Expulsion took place simply on the basis of Mexican ethnicity regardless of citizenship or legal status (De Genova 2002). A similar campaign enacted in 1954, Operation Wetback, sent another one to two million Mexicans back to Mexico (Chacon & Davis 2006).

During World War II, a shortage of labor caused the United States to again acknowledge a need for immigrant workers. In 1942, the Bracero Program was initiated, which brought in Mexican workers to fill the labor demand, although “illegal” immigration also increased during this time (Inda 2006). When the program eventually ended in 1964, the need for immigrant labor persisted, and thus “illegal” immigration again increased. It was also during this period that claims about “illegal aliens” depressing wages and causing social problems in the U.S. began to take shape.

The Civil Rights Movement called for the dismantling of immigration quotas based on racial stock and thus created the need to revise immigration policies. The Immigration Act of 1965 was supposed to implement “universal” quotas, but its employment of further restrictions on the number of immigrants permitted from the Western Hemisphere has further increased “illegal” immigration from Mexico (Inda 2006, Ngai 2004). Additionally, Hagan (1994) has noted that the history of revisions in U.S. immigration laws since 1965 has been a significant force in producing the contemporary configuration of Mexican migrant “illegality” and the sociopolitical construction of undocumented immigrants as a new “social problem.” Immigration reform since 1965 has sought to intensify militarization of the border, as in the 1986 Immigration Reform and Control Act or the 1994 Operation Gatekeeper, and to further criminalize immigrants, such as the 1996 Antiterrorism and Effective Death Penalty Act and the Illegal Immigration Reform and Immigrant Responsibility Act. In addition, the 1996 Personal Responsibility and Work Opportunity Reconciliation Act has taken away most federal benefits and services from both undocumented and legal immigrants, reinforcing derogatory notions that migrants come to the United States for welfare rather

than for work (Chacon & Davis 2006). Numerous state lawmakers have also passed legislation restricting immigrant rights and cutting off access to health care benefits. Most recently, Arizona passed a law in 2010 requiring police to question anyone who is suspected to be in the country illegally (State of Arizona 2010), legislation which has essentially enacted a government-condoned practice of racial profiling.

The implementation of immigration policies has, as a result, created particular socio-political constructions of immigrants, especially “illegal” immigrants, and of the U.S.-Mexico border. Chacon and Davis (2006:201) note that “only since the 1970s has the idea of a border been transformed from a political partition between two countries to that of a ‘fortress barrier,’ the last line of defense of the ‘homeland.’” De Genova (2002:436), furthermore, describes the significance of the border as providing “the exemplary theater for staging the spectacle of the ‘illegal alien’ that the law produces,” whereby intensified military control of the border “renders a racialized migrant ‘illegality’ visible and lends it the commonsensical air of a ‘natural’ fact.” Images of the border projected by politicians, law enforcement agencies, and the media have been used to exploit fears and garner public support. The language used of an “out of control” border and the threat of an immigrant “invasion” provokes images of warfare and an attack on American society, creating public anxiety and deflecting attention away from unpopular policies (Chacon & Davis 2006). Furthermore, the discussion has specifically focused on the Mexican border, generally choosing to ignore the sparsely monitored Canadian border. Thus, the main objective is not to actually protect the physical border, but to protect the “borders of white privilege and the notions of citizenship that are being transcended by a global society” (Lovato, in Chacon & Davis 2006:254). The result has

been a racial profiling of “illegal” immigrants, whereby all identifiable Latinos are automatically suspect, despite the fact that as many as one-third of undocumented immigrants come from wealthy countries (Chacon & Davis 2006).

A number of scholars have noted, furthermore, that immigration laws actually *produce* “illegal” subjects (Inda 2006, De Genova 2002, Coutin 2000). Immigration laws are tactical in their design and implementation. The conception of “illegality” has been useful in several ways, both in disciplining and othering non-citizens, and in justifying expanded surveillance against *all* subjects, citizens included. Immigration policy has also served to weaken the labor movement and institutionalize discrimination. “Illegality” has been a “means of division and exclusion to better sustain the hegemony of Capital over labor,” whereby deportation has been an effective tool to prevent unionization among Mexican workers and keep them working for next to nothing (Chacon & Davis 2006:195). De Genova (2002:429) further discusses the “legal production of migrant ‘illegality,’” whereby undocumented migrations are constituted “to socially include them under imposed conditions of enforced and protracted vulnerability.” The status of “illegality” creates social spaces of forced invisibility, exclusion, subjugation, and repression for undocumented immigrants (Coutin 2000).

Anthropologists and other social scientists have described the social construction of immigrants and the migrant body, and the ways in which these constructions shape and inform policy. These studies highlight the ways in which migrants are constructed as “the other,” often through sets of binary oppositions that essentialize differences between “us” and “them” (Chavez 2006, Inda 2006, Horton 2004). The very notion of “illegality” criminalizes undocumented immigrants, constructing them as unethical “anti-citizens

incapable of exercising responsible self-government and thus as threats to the overall well-being of the social body” (Inda 2006:64). In addition to being lawbreakers, they are also constructed as job takers and as public burdens, taking advantage of social services and “sponging off the American state and people” (Inda 2006:64). These essentialized differences between citizens and foreigners, legitimate and illegitimate, deserving and undeserving, all serve to construct immigrants (or certain groups of immigrants) as a threat to the nation and a drain on social resources. As Chavez (2006:291) notes, difference is constructed through these binary oppositions, which “exist in a power relationship such that one term is dominant and the other subordinate, one positive and one negative, one normal and one pathological.” In this way, migrants are constructed not only as “other,” but as inferior, unacceptable, and even dangerous. As Horton (2004) points out, however, not all immigrants are constructed in the same way, but rather, immigrant groups are conceptualized in terms of popular estimations about a groups’ moral or economic worth, which serves to create categories of “deserving” and “undeserving” immigrants. Thus, certain immigrant groups are legitimized and deemed deserving of health and social services, while others are deemed illegitimate and undeserving. Horton also emphasizes that these constructions are frequently formulated higher up at the policy level, and then filter down into institutions, such as public health services, where they become operationalized.

Through this lens, immigration policy has been constructed to prevent “undesirable” immigrant groups from becoming problems within the social body by preventing their entry into the body politic. This construction is reminiscent of Lock and Scheper-Hughes’ (1990) discussion of the “three bodies,” whereby the individual bodies

of immigrants are understood as matter out of place (dirt or pathogens) afflicting the social body of the United States, and thus must be expelled by the body politic (the government) in order to maintain the health of the social body. The result of these socio-political constructions is that “illegal” immigrants are understood as causing harm to U.S. society. These constructions ignore the actual economic reasons why people migrate (discussed earlier) and, by blaming social and economic problems on immigrants, ignore the roles both big business and the U.S. government have played in driving down American wages (Inda 2006). Furthermore, they also ignore the fact that although immigrants do use public services, most of them are employed and pay the same taxes as citizens.

Just as immigration policies have stigmatized and constructed migrants as undeserving of the same basic rights as citizens, agricultural policies have similarly contributed to the marginalization of migrant workers. The United States has historically treated the agricultural industry as distinct from other types of work, excluding farmworkers from the same rights and protections granted to workers in other industries as established by the Fair Labor Standards Act (Schell 2002, Rothenberg 1998, Holmes 2006). The federal government has historically supported the economic interests of agribusiness, exempting the agricultural industry from the labor standards applied to other industries, including minimum wage standards, overtime provisions, and workers’ compensation. Thus, the combination of immigration, economic, and agricultural policies reinforce the exploitation of migrant farmworkers as a cheap and easily controlled labor source.

(Im)Migration, Acculturation, & Assimilation

The concept of acculturation has been of particular interest to researchers of migrant health. In particular, a trend has been observed whereby immigrants come to the United States with a higher initial health status than the native-born population, but over time, their health status decreases. In an attempt to understand this trend, some have speculated that cultural factors promote healthier behaviors among immigrants, but as they acculturate to the dominant culture of the United States, they adopt less healthy behaviors, leading to a decrease in health status. Numerous researchers have reported this relationship between acculturation and declining health, particularly among Latino immigrant populations, with length of residence in the United States and English language proficiency serving as the most typical proxies for acculturation (Finch et al 2004, Abraido-Lanza et al 2005, Antecol & Bedard 2006, Chen et al 1999). Several studies, furthermore, have explored the impact of acculturation specifically on obesity among immigrants living in the United States. In a study of Latino agricultural workers in California, Hubert et al (2004) found that number of years living in the United States was positively correlated with increased body mass index (BMI) and obesity rates. Higher BMI was furthermore correlated with increased prevalence of chronic diseases such as high blood pressure, high cholesterol, and diabetes among this population. Similarly, Bates et al (2008) found generational status of immigrant families to be associated with increased BMI and obesity, but also note that there was considerable variation by country of origin. Antecol and Bedard (2006) also report length of residence to be positively correlated with increased BMI among immigrants, and Himmelgreen et al (2004) found both length of residence and language use to be associated with increased BMI in their

study of Puerto Rican women living in the United States. Akresh (2007), furthermore, examined the relationships between acculturation, dietary change, and BMI among Hispanic immigrants, finding that those who had resided in the U.S. longer and reported higher rates of English language use reported greater dietary changes, which were also associated with higher BMI measures. Himmelgreen et al (2007) report similar findings in their study of Latino immigrants, with participants describing unhealthy changes in diet, decreased physical activity, and weight gain.

Although these studies reveal interesting changes in immigrant health status over time, anthropologists have been particularly critical of acculturation as a concept. One of the main critiques is that acculturation has not been clearly or consistently defined by researchers, and is typically described in terms that greatly reduce the complexity of culture and of immigrant interactions with the dominant host society (Hunt et al 2004, Portes & Rumbault 2001). Most typically, the concept is defined in terms of an ethnic minority group adopting the cultural norms, values, and practices of the dominant ethnic group. Thus, many studies that explore the relationship between acculturation and health compare the “culture” of ethnic minority immigrants to white Americans (i.e. Abraido-Lanza et al 2005, Chen et al 1999). An interesting variation to this, Antecol and Bedard (2006) instead compare immigrants to U.S.-born populations of the same “ethnicity.” While this acknowledges that U.S.-born ethnic populations do not necessarily conform to the dominant “white” culture, but frequently maintain their own ethnic subcultures, the study erroneously confuses bureaucratically defined racial/ethnic categories (“white,” “black,” “Asian,” “Hispanic”) as pertaining to actual meaningful, self-defined ethnic identities. As Clark and Hofsess (1998) explain, these categories were neither defined nor

selected by the people they are supposed to describe. Lumping people together into these generic categories ignores important distinctions in culture and ethnic identity, and also may hide important differences in health status and processes of acculturation among various cultural groups. Additionally, these studies fail to acknowledge the bi-directionality of acculturation, the process by which dominant and minority cultures are influenced by each other and both undergo changes in cultural patterns. Rather, they frequently depict acculturation as a linear process, whereby over time and with increased exposure, minorities replace their own, native culture with that of the dominant culture, gradually becoming “more acculturated” (Clark & Hofstess 1998, Himmelgreen et al 2004, Portes & Rumbault 2001).

Another critical issue in studying the relationship between acculturation and health is the actual measurement of acculturation. Various studies have measured acculturation in a variety of ways, most typically focusing on length of residence in the United States and language use (Abraido-Lanza et al 2005, Himmelgreen et al 2004, Antecol & Bedard 2006, Chen et al 1999, Clark & Hofstess 1998). With no explicit definition of acculturation in place or any standards by which to measure it, researchers can only estimate degree of acculturation through the use of crude indicators. It is not entirely clear, however, whether these indicators are actually measuring acculturation, or whether they are measuring some other aspect of the migration experience. For example, although length of residence in the U.S. has been associated with declining health status among various immigrant groups (Abraido-Lanza et al 2005, Himmelgreen et al 2004, Antecol & Bedard 2006, Chen et al 1999), the decline in health may be due to other factors besides acculturation, such as environmental exposures, stress, or increasing

economic insecurity. Thus, without examining the myriad of factors that may affect immigrants' health, it is rather presumptuous to conclude that acculturation causes a decline in immigrant health based on mere associations between health status and a set of crude indicators that may or may not actually measure acculturation.

Finally, additional problems with acculturation research involve the type of data collected and potential errors in data collection. Perhaps one of the greatest limitations of this research is the almost exclusive use of quantitative data. Most studies of the relationship between immigrant health status and acculturation rely on survey data that assess health based on Likert-type scales and self-reported health conditions (Abraido-Lanza 2005, Antecol & Bedard 2006, Chen et al 1999). Self-reports of health may result in the under-reporting of health problems, and limited access to health services among immigrants might mean that morbidity and mortality is under-estimated for these populations (Acevedo-Garcia & Bates 2007). Likert-scales are not particularly accurate for measuring health status, and may unintentionally bias respondents to report better health based on their wording. For example, a typical Likert-scale question asks respondents whether they would characterize their health as "excellent, very good, good, fair, or poor" (Antecol & Bedard 2006). This scale provides three possible answers for good health, but only one possible answer for bad health, biasing the respondent towards a positive response. Furthermore, these surveys generally do not assess how individuals understand or define health, presenting significant problems in drawing conclusions about actual health status based on survey responses. A person who defines health as "the absence of disease" will answer differently than an individual who defines health as "complete physical, mental, and social well-being." Qualitative research can contribute to

understandings of how different immigrant and ethnic groups conceive of health and illness, and how the processes of migration and “acculturation” are experienced by these individuals, yet relatively few studies examining acculturation and health utilize qualitative methodologies. Himmelgreen et al (2004) and Himmelgreen et al (2007) present an exception: they supplement their quantitative research with qualitative data on food habits and consumption patterns in order to better understand the processes of culture change and its relation to increased BMI and dietary changes. Interestingly, this research indicates that other, structural factors beyond acculturation are important in understanding declining health among immigrants.

The Body as Cultural Domain: Implications for Obesity

Anthropologists argue that health and the body are culturally-constructed categories, which may influence the ways in which people conceptualize obesity as a health issue. Medical anthropologists have emphasized the ways in which conceptions of the “healthy” body are socially constructed, and thus ideal or desirable body sizes and weights vary across cultures (Massara 1980, DeGariné & Baker 1983, Messer 1984). Perceptions of healthy bodies, therefore, may differ significantly between the Western biomedical model and the cultures of various peoples living in the United States, and this can have a significant impact on how obesity is conceived of and understood. Davidson and Knafl (2006:342) note, for instance, that “little convergence is found between the meaning and use of the concept of obesity by healthcare professionals and those they are trying to serve.” Some anthropologists, furthermore, have suggested that obesity could be considered a “culture-bound syndrome” of biomedicine (Ritenbaugh 1982). The implication, therefore, is that obesity cannot be assumed to be a universally understood

and recognized disease, but instead is the creation of a particular culturally-constructed conception of the body, one perpetuated by the culture of biomedicine.

Studies of body image have been one popular method for examining perceptions of the body, particularly in psychology. Several studies have looked specifically at the relationship between ethnicity and perceptions of the body to examine cultural differences in body image and conceptions of obesity (i.e. Cachelin et al 2005, Rubin et al 2003, Contento et al 2003, Simeon et al 2003, Cachelin et al 2002, Demarest & Allen 2000, Crago et al 1996, Winkleby et al 1996, Chandler et al 1994, Wright & Whitehead 1987). The findings of such research have been variable, and overall these studies tend to focus on adolescent or adult women, and most frequently compare black and Caucasian women. Some researchers have proposed that ethnic subcultures within the United States may have different ideals regarding body size and may be more tolerant of obesity (Crago et al 1996, Chandler et al 1994). In particular, such speculations are based on studies that found black and Hispanic women report being less dissatisfied with their bodies than do white women, despite having on average higher body weights. Rubin et al (2003) found that African American and Latina women do not uphold thin beauty ideals. In a multi-ethnic study examining body image perceptions in Trinidad, Simeon et al (2003) found overweight African adolescents to be significantly more satisfied with their bodies than were overweight individuals of other ethnic backgrounds. Also of interest, this study found obesity to be significantly associated with perceived wealth and, to a lesser extent, happiness among African individuals.

In contrast to these studies, however, several researchers have found no differences in perceptions of body image based on ethnicity. In their study of gender,

ethnic, and age differences in body image, Demarest and Allen (2000) found no significant differences between Latino and white preferences for female body size and shape. Similarly, Cachelin et al (2002) also found that ethnicity does not have any significant influence on preferences for certain male or female body shapes or tolerance for obesity, suggesting that other factors may be more important in shaping perceptions of obesity. In another interesting study, Contento et al (2003) found that perceptions of body image among low-income Latina women differed between adult and children's bodies: the women chose relatively thin bodies as the healthy ideal for an adult body, but tended to perceive normal-weight children as being too thin and overweight children as healthy or only slightly large. This is one of the only studies that explores parents' perceptions of their children's bodies, making this an area of research that needs further exploration. Finally, Cachelin et al (2005) looked at the influence that age, weight, socioeconomic status, and acculturation have on Mexican American women's perceptions of body image and ideal body size. They measured acculturation using the Acculturation Rating Scale for Mexican Americans-II (Cuellar et al 1995), a scale that uses a bi-dimensional approach to measure cultural orientations through the assessment of multiple cultural domains, including language use and preference, cultural heritage, and ethnic identity, behaviors, and interactions. Cachelin et al (2005) found that both degree of acculturation and weight significantly impact body perceptions, with more acculturated women selecting smaller ideal body sizes and heavier women selecting larger ideal body sizes. This suggests a much more complicated picture than simple ethnic differences in body image, alluding instead to a complex range of interacting factors that together shape perceptions of the body. Overall, few solid conclusions have

been drawn from this diverse set of literature, with many questions remaining as to the existence of cultural differences in body image perceptions and preferences for larger body sizes, and the implications that such differences have for obesity among minority populations in the United States. The current study builds upon this body of research by exploring cultural perceptions of the body among a particular population, Latino immigrant farmworkers. To date, no research has specifically examined perceptions of the body or body image among farmworkers.

Food Patterns & Consumption: Contributions from Nutritional Anthropology

Cultural conceptions of food and nutrition and structural constraints that shape access to food are also important in attempting to address obesity as a health issue. Nutritional anthropologists have described the ways in which cultural, political, and environmental factors interact to shape food choices, which then influence nutritional and functional outcomes (Pelto 2000). Pelto (2000) describes the contributions of anthropology to issues of nutrition in terms of five basic categories of work: 1) cultural ecology, which examines how the environment and socio-cultural systems affect nutrition; 2) social epidemiology, which identifies and examines various determinants of food intake and nutritional status; 3) studies of culture and foodways, which describe the cultural structuring of food intake; 4) critiques of nutritional programs and education, which typically highlight the ethnocentric biases embedded in Western models of nutrition that are erroneously applied to non-Western settings; and 5) the development of improved methodology for measuring food and nutritional consumption. Anthropologists have, in particular, stressed the importance of culture in determining patterns of food consumption and food habits, and thus the need for nutritional education programs to

develop culturally-sensitive and appropriate models (Himmelgreen 2002). Essa (2001), for example, found that although Latino farm and industry workers perceived eating a “balanced diet” as important to health, some also expressed confusion as to the meaning of a balanced diet, indicating a need for clearer nutritional information among this population. In order to address the growing problem of obesity, it is important to understand the cultural context and conceptions of both food and nutrition among populations of interest, and the ways in which these relate to perceptions of health and the body.

Environmental and lifestyle factors beyond culture, such as socio-economic status, income, and occupation, also impact food habits and nutrition, and are in turn related to obesity. Indeed, one common critique launched by anthropologists is the failure of many nutritional education programs to address basic social and economic needs that produce malnutrition (Pelto 2000). In the case of migrant farmworkers, low wages and poverty have a significant impact on food consumption and the ability to provide adequate, nutritious meals for families and households. A number of studies note that low socioeconomic status and migratory lifestyles put Latino farmworkers at higher risk for developing nutrition-related health problems (Kowalski et al 1999, Loria et al 1995, Shotland 1989). This is also true of migrant workers in other unskilled labor industries. For example, Zohry (2003) found that migrant workers in Cairo consume mostly ready-made, cheap, poor-quality foods from street vendors due to a combination of low wages, poor housing conditions, and lack of adequate cooking equipment. Such studies demonstrate that income and food costs are as important as culture in determining food choices, and may outweigh considerations of health or social desirability. Kumanyika and

Grier (2006), furthermore, note that low-income and minority neighborhoods tend to have more fast food restaurants and fewer vendors of healthful foods located in them. The convenience of these less healthy food options, combined with their lower expense, make these appealing options for low-income workers.

The extreme poverty experienced by many farmworkers puts them at increased risk of food insecurity, which may also be a significant factor impacting obesity. Food insecurity has been defined as lacking consistent access to sufficient food for an active and healthy life, with an emphasis on the need for foods that are both nutritionally appropriate and culturally acceptable (Quandt et al 2004). A number of studies have proposed the existence of a relationship between food insecurity and obesity. Kaiser et al (2004), for example, suggest that food insecurity may be related to obesity among Latina women in the United States, and have found that greater food insecurity is associated with a lower variety of most foods within the household, especially fruits and vegetables. Olson et al (2007) further explore how childhood experiences of food insecurity may establish patterns of eating behaviors that increase risk of obesity in adulthood, and find food insecurity to be significantly associated with eating patterns.

Food insecurity is a considerable problem among migrant families living in the United States. Shotland (1989) reports migrant farmworkers to be at increased risk of experiencing food insecurity, finding that 44 percent of migrants surveyed indicated seasonal food shortages. In a more recent study of migrant farmworkers in North Carolina, Quandt et al (2004) found food insecurity to be more than four times as prevalent among farmworker households as among the general United States population, with about 47% of farmworker households classifying as food insecure. In another study

of Latino farm and industry workers in Virginia, Essa (2001) found that 98% of the workers surveyed suffered from food insecurity, with females indicating greater food insecurity than males. Essa further found that although most participants demonstrated an understanding of the importance in consuming fruits and vegetables to maintain good health, most reported not consuming enough of these foods. The expense of fruits and vegetables and lack of money were the main barriers identified that prevented adequate fruit and vegetable consumption.

Cultural Competency & Provider Perceptions

Cultural competency is a concept that has gained significant popularity among health professionals in recent years (Betancourt 2004, Betancourt et al 2003, Leininger 2002, Barker 1992). These programs typically involve some training in the culture and demographics of various ethnic groups, with the goal of providing culturally-tailored healthcare services. Some research suggests that cultural competency programs can positively affect patient health outcomes by incorporating cultural health beliefs and practices into provision of care (Bechtel et al. 2000). Many anthropologists, however, have remained critical of the concept. A primary critique is that cultural competence training tends to reduce culture to a simplistic, static set of characteristics based on ethnicity while ignoring the dynamic nature of culture, migration, and power (Kleinman & Benson 2006, Hunt & DeVogd 2005, Guarnaccia 1996). There is also typically a general lack of recognition that health care providers themselves are influenced by culture. This practice leaves biomedical culture and practice unquestioned, suggesting that the knowledge of providers is “real” knowledge and concessions must be made to accommodate the cultural beliefs of others (Taylor 2003). Furthermore, the extensive

focus on cultural competency also ignores the broader political and socioeconomic conditions that influence health. It may be easy for medical professionals to reduce health outcomes to a product of cultural beliefs or related noncompliance with treatment, due to the fact that health care providers are typically not trained to see the social determinants of health (Holmes 2007); however, some provider training programs do recognize the need to examine multiple social, economic, and historical determinants of health disparities (Jacobs et al 2003).

In contrast to all the attention that has been placed on understanding the influence of culture on patient health behaviors, relatively little research has examined health care providers' perceptions of diverse patient populations, and the implications that such perceptions have for provision of care. There has been some research that suggests that patients' ethnicity or perceived race affects providers' perceptions and treatment of patients, including beliefs about and expectations of patients, interpersonal interactions with patients, and decisions about treatment (Van Rynn 2002). Provider behaviors in turn can influence factors such as attitudes, trust, behavioral intention, self-efficacy, and satisfaction among patients. Additionally, provider perceptions of patients are at times influenced by stereotyping and assumptions about differences based on the patient's perceived ethnicity, which can also have negative impacts on patient care (Lyons et al 2008, Lausch et al 2003). Van Ryn (2002) suggests that providers' beliefs about patients and patient behavior during health encounters contribute to health disparities among minority groups. It has been suggested, however, that the effects of ethnic stereotyping can be reduced through daily contact with the patient population, allowing for greater rapport-building and understanding of culture and lifestyle (Lausch et al 2003). This

study builds on previous research by exploring health and service provider understandings of culture and perceptions of farmworkers and the health issues affecting this population.

Summary: Creating an Holistic Perspective on Obesity

In an effort to be comprehensive, this literature review has highlighted the complexity of obesity as a health issue among farmworkers by examining previous research that covers a multitude of cultural and structural factors. As the literature discussed here indicates, addressing obesity among Latino farmworkers requires consideration of both how workers from a variety of origins conceive of obesity and nutrition, and what factors beyond cultural conceptions may be involved in determining the food habits and nutritional status of this population. While there is a vast amount of research out there exploring various aspects of nutrition and obesity among Latino populations in the United States, there are relatively few studies that examine the ways in which these multiple factors interact with and influence one another. Nor are there any studies that specifically explore the context of obesity among farmworkers. Thus, the current research to be described in the following chapters uses Critical Medical Anthropology as a framework to build upon these previous studies in producing a critical analysis of obesity as a health issue among Latino farmworkers.

Chapter 2

Studying Farmworkers in Central Florida: Background, Setting, and Methods

Less than an hour outside the Tampa metropolitan area, the city quickly gives way to rural countryside and farmland, a stark contrast to the urban sprawl and tourism that have consumed much of the Bay area. Here, agriculture comprises one of the main industries in many of the scattered small towns going east along I-4, and both north and south along I-75. Oranges, strawberries, and tomatoes are all grown in this general vicinity, but the main crop of this region is the strawberry. The produce that is grown here has become a proud part of the local culture, with a large strawberry festival held every year just after the strawberry harvest, typically sometime in late February or early March.

Less visible, however, are the workers who labor each day in the fields, picking this year's yield for consumption by the American public. The state of Florida has the fourth largest population of migrant/seasonal farmworkers, although due to the high mobility and hidden nature of this population, estimates of the actual population size vary widely, ranging from roughly 195,000 (Shimberg Center 2004) to as many as 600,000 (Meade & Calvo 2001). Central Florida, where this study takes place, produces approximately 95% of Florida's strawberry crops (Crop Profile 2004). Roughly 9,000

migrant workers return to this region each year to harvest the local crops, the majority of whom originate from Mexico (Shimberg Center 2004). They include both documented and undocumented workers, men and women, some traveling together as a family, and others traveling individually and sending remittances home to a waiting family in Mexico or elsewhere in Central America. In addition to this migrant population, approximately 6,800 seasonal farmworkers maintain permanent residence in the area, finding temporary employment in other occupations during the off-season, such as construction or landscaping (Shimberg Center 2004). For both groups, employment is largely characterized by instability and seasonality.

The year in which data collection was completed (2009-2010) was a particularly harsh one for farmworkers. On top of the poor economic situation, unseasonably cold weather in Florida during January and early February caused a significant delay in the ripening of the strawberry crop. As a result, many migrant workers returning to the area found themselves unexpectedly unemployed for several weeks. When the crops finally did come in early March, the harvest coincided with California's, causing a significant drop in the cost of the berries as the markets became flooded with an unprecedented supply. The delay, furthermore, forced many Florida growers to cut the harvest short, plowing over their strawberry plants by late March as they had to prepare their fields for spring produce. Thus, after waiting as much as two months for the strawberry harvest to begin, migrant farmworkers were able to secure only about three to four weeks of berry picking work this year.

Understanding a complex health issue such as obesity requires the consideration of multiple factors. In developing this research, I have emphasized the importance of

adopting a holistic perspective in examining the poor health outcomes found among farmworkers. The following passages describe the setting where research took place and the methodology used to collect data for this study. A demographic profile of the participants who took part in the study is also provided at the end of the chapter. Protocols used for data collection can be found in the appendices at the end of the manuscript. All names included within the text, including the names of towns, organizations, and people, are pseudonyms.

Research Setting

My research was carried out from June 2009 to July 2010 in a small Central Florida farming town called Dale (pseudonym). Dale has an estimated population of about 3,275 people. Agriculture and construction make up the town's two main industries, comprising more than half of the local jobs. Roughly 50% of the population classifies as Hispanic, and 28% live below the poverty level (Hillsborough Community Atlas 2009). This is significantly higher than the state average of 12.5% below poverty. It is a relatively resource poor area, with schools, shopping, and health care facilities located mostly outside in neighboring cities. At the time of this research, two local not-for-profit clinics were in operation in the area, one federally qualified health center (FQHC) operating on a small fee-for services basis, and the other providing services for free as part of a Mission, described below.

The bulk of my data collection took place at the San Juan Mission, a local faith-based, non-profit organization serving the area's impoverished population. This Mission operates in close proximity to the majority of the town's agricultural fields, providing an array of free services to local low-income families, most of whom are farmworkers. The

Mission has a stationary clinic on site, but also provides mobile clinical services, which travel out to various rural communities. The clinic uses volunteer physicians and health service professionals to provide free medical, health promotion, and social services, targeting persons with household incomes below 200 percent of the poverty level. Their services include acute primary medical care, routine “well woman” (gynecological) exams, health promotion and disease prevention, and health screenings for high blood pressure and diabetes. In addition to the clinical services, the Mission also offers adult education classes, child day-care, legal services, and has recently expanded to offer low-income housing, featuring approximately 80 on-site apartments, with plans to expand in the near future. My research activities were conducted in conjunction with the on-site clinic, with recruitment taking place in the clinic’s waiting area. All research plans and protocols were approved by the clinic director prior to the start of this study.

The target population served by this clinic consists of predominantly migrant and seasonal farmworkers and their families, the majority of whom are immigrants from Mexico and other parts of Central America. Demographic records indicate that slightly less than half (about 43%) of clinic patients have resided in the United States for less than five years, and the majority (about 84%) have 12 years of education or less (Luque et al 2007). Clinic staff emphasize the heterogeneity of the community they serve: individuals utilizing the clinic’s services come from a variety of different countries with different cultural and linguistic backgrounds. Thus, while the majority are Mexican, as many as 15-20% are of other Central American origins, and while many individuals speak Spanish as their primary language, some speak indigenous languages, with varying degrees of Spanish-speaking abilities. Awareness of this heterogeneity, therefore, has been a crucial

aspect of this research. Additionally, this population is diverse in terms of individuals' immigration status, classification as migratory or seasonal workers, and rural versus urban origins, among other aspects. Through this study, therefore, I have tried to highlight the diversity of this population, while still identifying some shared characteristics and commonalities.

Research Methods

Anthropologists have been strong proponents of qualitative research methods, particularly the use of ethnography, for studying and understanding complex socio-cultural phenomena. Whereas the health fields have long been dominated by quantitative methods, anthropologists have argued that the addition of qualitative methodologies creates a richer context for understanding health issues and outcomes among ethnically and culturally diverse populations (i.e. Heyman et al 2009, Benson 2008, Holmes 2007, Farmer 2005). In the realm of migrant health research, ethnography has been used to explore the social construction of policies affecting immigrants, the struggles migrant workers face in trying to access health care, manage illnesses and other health issues, and the ways in which various forms of discrimination affect the health and overall well-being of migrant workers (Heyman et al 2009, Benson 2008, Holmes 2007, 2006, Chavez 2006, Hoffman 2006, Horton 2004, Menjara 2002, Fassin 2001, Singer et al 1992, Chavez 1992). These studies have vastly expanded the depth of understanding with regard to the many aspects of migrant health and the ways in which migrants navigate the U.S. healthcare system.

Both qualitative and quantitative research contribute to the understanding of health disparities. For this reason, I developed a mixed-methods design for collecting my

data, which included participant observation, semi-structured interviewing, and structured interview-questionnaires. Through the combination of qualitative and quantitative methods, I was able to elicit a variety of information around issues of health, nutrition, and the body. The data I collected explore cultural perceptions among both local Latino farmworkers and community health providers, as well as some of the broader structural factors that influence health-related behaviors. I did not have, nor did I at any time request, access to any privileged information such as patients' records. I also did not record participants' names on any of the collected data to help ensure confidentiality; any names that appear in this paper are pseudonyms. The key methods that were used are summarized below in Table 1.

Table 1: Research Methods

Method	Sample Size	Objectives
Participant Observation	5 health fairs; 15 clinic visits	Observe local conditions, community relations, clinical interactions, and other contextual factors.
Semi-structured Interviews Population: health & service providers	4	Explore perceptions of critical health and nutritional issues affecting farmworkers, and the causes of disparities among this population.
Structured Interview Questionnaires Population: Latino farmworkers attending clinic or health events	18 female participants 7 male participants	Explore cultural beliefs and perceptions of the body and food, as well as contextual socio-demographic data.

Sampling

Data collection for this project took place from July 2009 through July 2010. The duration of this research, which spans both the agricultural and off-seasons, means that

my study sample includes both migrant and seasonal farmworkers. Differences between these groups, however, were not the focus of the current study, and therefore participants were not classified as such nor data analyzed with this in mind. I identified interview participants largely through the course of participant observation. My time spent at the Mission clinic and volunteering at health fairs (described below) provided the opportunity to meet various clinic staff and volunteers, as well as other local service providers, with whom I requested interviews. I collected contact information from individuals who consented to an interview, and later contacted them by either e-mail or phone to schedule a time. Similarly, I also recruited farmworker participants at the clinic and health fairs, but for this group I used a random sampling strategy. At health fairs, I stood by the entrance and asked every third person to participate. During clinic nights, I recruited from the clinic's waiting area, a trailer located separately from the clinic, where I numbered the seats and then selected five using a random number generator. Individuals sitting in these seats were asked to participate. In both cases, the interview-questionnaire was administered immediately to those who gave consent. Further details about my methods and research instruments are provided in the following sections.

Participant Observation

Participant observation, as described by Bernard (2002) and LeCompte and Schensul (1999), has been a cornerstone to anthropological research methodologies. The use of participant observation provided important contextual information for this research. During the course of my study, I attended the mission's Monday evening clinic on roughly 15 occasions, where I spent most of my time in the waiting area. I also attended a total of five health fairs sponsored by the mission during this time, at two of

which I served as a volunteer. I used these occasions as opportunities to observe the interactions and communications between clinic staff/volunteers and those attending the clinic or health fairs. I brought my field journal with me on all trips to the clinic to write down fieldnotes of my observations. These data provide valuable insight into the operations of the clinic and health fairs, as well as the nature of the relations and interactions among the community, clinic staff, and volunteers.

Semi-structured Interviewing

Semi-structured interviews, as discussed by Bernard (2002), were conducted with clinic staff and service providers identified through participant observation at mission functions. A total of four individuals were interviewed: the clinic director, a parish nurse, a volunteer who had several years of experience working with farmworkers, and the operations manager at a local food pantry serving farmworkers. The main objective of these interviews was to explore perceptions among local health and service providers regarding the critical health issues affecting farmworkers and the causes of disparities among this population. Additionally, interviews also examined perceptions specific to the issues of obesity and nutrition among local farmworkers. These data helped to create a better understanding of the overall quality of life within the community, including both perceived community strengths and unmet needs. Interviews were semi-structured, featuring primarily open-ended questions designed to probe into informants' conceptions of obesity as a health issue among the community and ways to address the problem.

All formal interviews were conducted in a private setting of the participant's choice. Written informed consent was obtained at the beginning of each interview. I recorded the interviews using a digital voice recorder with the permission of my

informants. Afterwards, I transferred the audio files to a personal computer, protected by password, and then transcribed each interview into a Word document. The transcribed interviews were then read carefully and coded for key themes. Additionally, “informal interviews” (Bernard 2002) also took place in the form of more casual conversations during the course of the research, particularly during participant observation sessions, providing further supplemental information. When such conversations occurred, I did my best to capture as much of the content as I could in my field journal. These fieldnotes from my participant observation sessions were also coded for key themes, and common themes emerging from the content analysis of both interviews and fieldnotes were then triangulated together with the data collected from the questionnaires, described below.

Structured Interviewing

Weller and Romney (1988) define structured interviewing as a form of systematic data collection, whereby each individual is asked the same set of questions. I developed a structured interview-questionnaire to administer to farmworkers and their families coming to the clinic to receive health care services or attending other health events, with the primary objective of exploring cultural perceptions and attitudes towards the body and food as they relate to health. I chose to use a structured interview with my farmworker participants, rather than semi-structured, for a number of reasons. First, for the protection of my informants, I decided not to audio-record these interviews, which meant that I had to record all data collected by hand, a task that would have been quite tedious with an open-ended, semi-structured interviewing format. Additionally, since participants were being recruited while they were waiting to receive services, I needed a data collection method that was relatively quick. It would have been much more difficult

to get potential participants to commit to a lengthy interview under such circumstances. The use of a structured questionnaire-type format, therefore, seemed to be the most appropriate method for the given situation. I did, however, incorporate a few open-ended questions into the interview, thereby providing a mix of qualitative and quantitative data.

Participants were invited to complete the interview-questionnaire if they fit the following inclusion criteria: foreign born, native Spanish speaker, with a history of farmwork or a family member who was a farmworker. For the purpose of this study, I did not specify a timeframe for having engaged in farmwork, so that some individuals were included who were former farmworkers, but had since moved into different industries. The majority of participants, however, had performed farmwork within the past year, some as seasonal workers and some as migrants. Children under the age of 18 were excluded from participation, although it is not uncommon for children to accompany their parents out into the fields. The current study, however, focuses on adult farmworkers, particularly because as working adults and/or caretakers, these individuals generally assume a responsibility for the health and well-being of the family. Additionally, this study seeks to emphasize the particular vulnerability of immigrants, who make up the majority of farmworkers, and so U.S.-born farmworkers were also excluded from participation.

The bulk of this study focuses on the perspectives of women, although a smaller sample of men was included as well. Women were selected as the focus for this research for two primary reasons: 1) Latina women suffer from higher rates of obesity than do Latino men, and 2) women are most often the ones who prepare food for the household, giving them some control over the nutritional consumption of the family. I therefore

developed one main questionnaire for women, taking approximately 30 minutes to complete, and a shorter questionnaire for men, taking roughly 15 minutes to complete. The questionnaires were administered orally to accommodate for individuals with limited literacy, and all interviewing was conducted in Spanish. Oral informed consent was obtained from all individuals before conducting the interviews. In total, I interviewed 18 women and seven men.

The women's questionnaire contained three main components. First, I collected some basic socio-demographic and background information. Participants were asked some basic questions about their age, country of origin, length of time living in the United States, and their work history. They were also asked questions about their household, including number of children, number of working adults, and household income available for food expenditure. Finally, I included some open-ended questions at the end of this section inquiring about major life concerns and health issues they would want to learn more about.

The next part of the interview entailed a pile-sorting activity (Weller & Romney 1988). This activity explored perceptions around food and nutrition. I first generated a list of foods through a free-listing exercise conducted with four families attending the Monday night clinic. For this exercise, I asked individuals what their favorite foods were, and what foods they had eaten in the past day. I also elicited responses about foods that children like, in order to include a range of foods reflecting all members of the household. The responses I received from this activity were then used to develop a stack of 35 cards, each with a different food item pictured on the front. During the interview, I handed participants the stack of cards, and asked them to sort the stack two different

ways. The first time, I asked them to sort the foods into categories of their own choosing, explaining why they sorted the foods into these groupings. The categories and foods within each category were recorded on the questionnaire. Next, I asked the participants to sort the foods again, this time into two pre-determined categories: healthy foods and unhealthy foods. Again, the foods placed into each category and any explanations as to why were recorded.

Finally, the last part of the questionnaire used a body silhouette rating scale to explore perceptions of the body and its relation to health. The body silhouette rating scale depicts a series of male and female bodies ranging from extremely thin on one end to extremely overweight on the other end (Thompson & Gray 1995). The bodies are numbered from 1 (thinnest) to 9 (fattest). I asked participants a sequence of questions about these images, similar to body image surveys that have been conducted by others, requiring participants to identify bodies that are healthy, unhealthy, attractive, and desirable (i.e. Simeon et al 2003, Contento et al 2003). Unlike previous studies, however, I also asked some open-ended, follow-up questions pertaining to the body silhouettes, such as how a person obtains a particular body type or size, and what they would need to do to obtain the body they want to have. Participants were asked questions about female bodies, male bodies, and also about what they want for their children when they grow up. Clinic staff were also administered these same body scale questionnaire items in order to explore clinical perceptions of the body as compared to those of farmworkers.

The men's questionnaire, on the other hand, was a much briefer version of the women's questionnaire, containing only the socio-demographic and body scale sections. Basic background information, including age, length of residence in the U.S., and work

history were collected, but extensive household information was not. A shorter set of questions regarding the body silhouettes was used, inquiring about healthy, unhealthy, and ideal bodies, as well as preferences for women's bodies, but no open-ended follow-up questions were included on this questionnaire. The primary objective was to see how men's perceptions compare to those of women regarding ideas about the body.

The use of a body silhouette questionnaire was pilot tested prior to the start of this study, in the spring of 2008. The findings from this pilot led to the search for a better tool, specifically one that included a greater number and variety of silhouettes to allow for a more accurate assessment of body perceptions. This phase of pilot testing thus allowed me to 1) locate a more appropriate survey tool, 2) gain preliminary experience regarding the feasibility of specific questions, and 3) underscored the availability and willingness of this population to participate, providing a sound foundation for the recruitment strategy described previously. Copies of the research tools described here can be found in the appendices, including the Body Silhouette Rating Scale (Appendix A), and both the women's and men's interview-questionnaires (Appendix B, Appendix C).

Data Analysis

Once I completed the data collection, qualitative data from the questionnaires were coded and analyzed for common themes in the same manner as the semi-structured interviews and fieldnotes, described earlier. Quantitative data were entered into Excel spreadsheets and analyzed using PASW Statistics 18 software (SPSS Inc. 2009). Descriptive statistics were performed on both the demographic and body scale data, including means, ranges, and frequencies. Further statistical tests were then performed to look for differences in body perceptions associated with socio-demographic

characteristics, particularly gender and length of residence in the United States. Non-parametric tests were selected as most appropriate, given the relatively small sample size (Madrigal 1998). A series of Mann-Whitney U-tests were performed to compare responses from the body scale questions between male and female participants, and Wilcoxon paired-samples tests were used to compare responses to between questions, for example perceptions of the healthiest body as compared to perceptions of ideal body. A chi-square test was used to assess one of the body scale questions, least healthy body, because of the polarized nature of participants' responses (i.e. respondents selected figures from the extreme ends of the scale). The Spearman coefficient was used to examine correlations between responses and length of U.S. residence. Additionally, the Mann-Whitney test was also used to compare responses between health providers from the clinic and farmworker participants.

Results from the pile-sorting activity were analyzed in a few different ways. First, the number and types of categories that participants chose to sort the foods into were compared to look for common themes in terms of how participants think about food, and frequencies of categories were assessed. Next, an item-by-item similarity matrix was created for each individual to tabulate the co-occurrence of items grouped together, and the matrices were then combined for all participants (Weller & Romney 1988). After the matrices were all compiled together, a multi-dimensional scaling analysis was performed to create a spatial representation of the data using PASW Statistics 18 software (SPSS Inc. 2009). Finally, the second pile-sorting activity, where participants were required to sort the cards into piles of healthy and unhealthy foods, was assessed through a consensus analysis using Ucinet social network analysis software (Borgatti et al 2002) to determine

the extent of cultural consensus on the nutritional status of each food item. Results from the two pile-sorting activities were also reviewed to examine similarities to and divergences from current USDA nutritional guidelines in order to better understand the informational needs of this population. After all data analysis was complete, quantitative and qualitative findings were triangulated to produce a comprehensive picture of the cultural and structural issues related to obesity among local farmworker families. These results are described in the following chapters.

Ethical Issues & Research with Vulnerable Populations

As with any study working with human subjects, there are certain ethical issues that are especially relevant to this research. Of particular importance is assuring the privacy and confidentiality of informants. The identities of all participants in this research will be kept strictly anonymous. Identifying information was neither collected nor recorded for individuals participating in this study. All names used throughout this report are pseudonyms created by the researcher. Furthermore, informed consent was obtained from all participants prior to interviewing. Participation was entirely voluntary, and participants were informed of their right to decline or discontinue participation at any time. Informed consent was obtained orally from farmworkers, as limited education, literacy, or lack of legal status could potentially cause participants to feel uneasy about signing their name to a written document.

The undocumented status of some immigrants is an extremely sensitive topic which must be addressed carefully. Identifying individuals as undocumented could potentially, although inadvertently, lead to their deportation, or at the very least create significant discomfort among participants. I recognized from the beginning, therefore,

that there was a need to proceed with great caution. Thus, in addition to maintaining the anonymity of all informants, I have also avoided inquiring about individual immigration statuses altogether in order to avoid any potential harm, as well as the personal discomfort that disclosing such information may cause. Immigrants comprise a vulnerable population, and therefore all efforts were taken to ensure that no harm was caused in the course of this research.

Demographic Profile of Participants

A total of 32 individuals participated in this research, including seven health and service providers who work with the local farmworker population, and 25 migrant and seasonal farmworkers. An overview of both participant groups and basic demographic information for each is given below.

Health & Service Provider Participants

Health and service providers participating in this study included four individuals with extensive experience working with migrant populations who completed interviews, and an additional three clinic volunteers who were not interviewed but completed body scale surveys. Participants ranged in age from 44 to 64 years, and included six females and one male. Three individuals self-identified as Latino or Hispanic, and two as Caucasian. Two survey participants declined to report ethnicity on the survey. All but one participant had backgrounds in medical or health fields. A brief profile for each interview participant follows.

Sister Margaret serves as the clinic director at the San Juan Mission where this research was conducted. She is a 64 year old nun and licensed Physician's Assistant, and has been running the San Juan clinic since its inception ten years ago. Prior to the

establishment of the clinic, she was part of a task force set up to identify barriers to health care among the local migrant community, and was then hired to create a program to address those barriers; the San Juan clinic and mission resulted from this process. Sister Margaret has been working with various migrant populations since 1980, and speaks fluent Spanish.

Juanita is a faith community nurse for the San Juan clinic, where she has worked officially for about a year and a half. Before being employed at the clinic she served as a volunteer. She is 63 years old and a fluent Spanish speaker who self-identifies as Latina. She has been working with migrant populations for her entire career, which spans some forty years. She has two Bachelor's degrees, one in Nursing and one in Theology, as well as a Master's degree in Nursing Administration with a minor in Public Health. Her role at the clinic includes providing patient education and coordinating services and resources for families with special issues or problems.

Miguel was the only service provider participating in the study without a health background. He is 44 years old with an Associate's degree in Human Services, is fluent in Spanish and self-identifies as Hispanic. He has been working with migrant farmworkers for over 10 years. Miguel is the Operations Manager of a local mission that operates primarily as a food pantry for farmworkers and their families. His role entails the coordination of personnel, volunteers, donations, pick-ups and deliveries, as well as occasional outreach and advocacy for farmworkers. He is himself a former farmworker, and therefore very knowledgeable about the realities of farmworker life.

Christine is a doctoral student in Public Health who had previously worked with migrant populations for several years and now occasionally volunteers for local service

opportunities at the Mission. She is 56 years old and self-identifies as Caucasian. She has a Bachelor's degree in Medical Sciences, a Master's degree in Public Health, and is also a licensed Physician's Assistant. She worked regularly with migrant populations in a clinical setting for about eight years in the 1980s, and continues to see migrants occasionally through her current clinical work as an epidemiologist with a local STD and HIV program, as well as through volunteer work. Christine reports that she does speak Spanish, but admits that she is probably not very fluent anymore since she no longer works consistently with Spanish speaking patients.

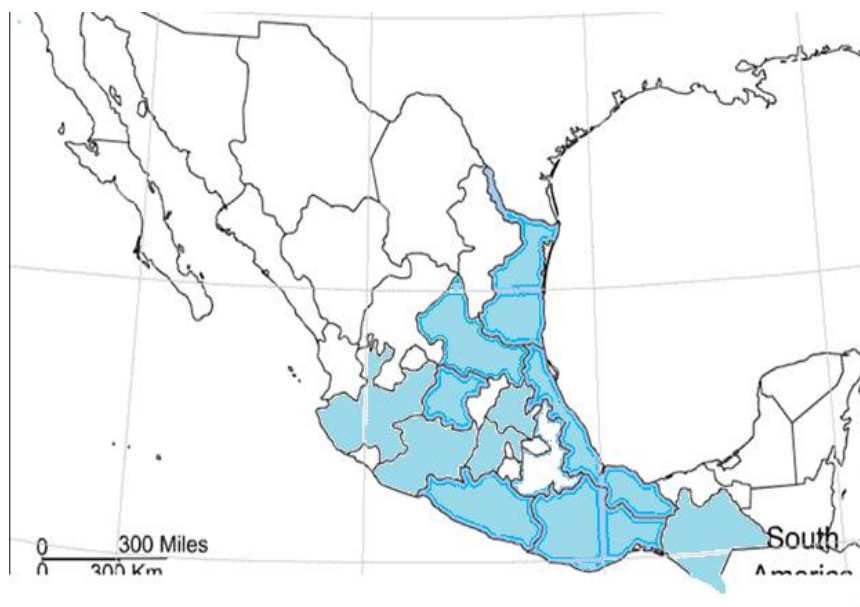
Farmworker Participants

Farmworker participants included 18 women and seven men who were either currently employed in agricultural work, had previously performed agricultural work, or had a family member who was an agricultural worker. Participants ranged in age from 21 to 63 years, with a mean age of 35.36 years. Roughly equal numbers of individuals reported being single and married; this entailed a total of 13 who were "unmarried," including two who were divorced and one woman who was separated from her husband and in the process of getting divorced, and twelve who were "married," which included two individuals who were not legally married but lived with a domestic partner. A Chi-square test showed that men and women were equally likely to be married.

As per the inclusion criteria for the study, all individuals were foreign-born. Length of residence in the United States ranged from two years to 24 years, with a mean of 10.1 years living in the U.S. All participants but one were originally from Mexico, which reflects the general pattern described by the clinic and found throughout the United States of farmworkers being primarily of Mexican descent. [The one non-Mexican

individual was from El Salvador.] Despite the relative homogeneity in terms of national origins, however, this sample included individuals from a variety of states and regions within Mexico. A total of twelve different Mexican states were represented in this sample, with the largest number of individuals coming from Guanajuato (n=4), Oaxaca (n=3), and Veracruz (n=3). Figure 1 depicts a map of Mexico showing all the different states from which participants had arrived. Additionally, four individuals (16%) reported speaking an indigenous language, with Spanish serving as a second language, 15 (60%) reported speaking Spanish only, and six (24%) reported speaking “a little” or “some” English, but primarily Spanish. No individuals were fluent in English. The linguistic and geographic diversity of this sample exemplifies the heterogeneity of farmworkers emphasized by the clinic.

Figure 1: Origins of Farmworker Participants



Summary

This chapter has provided a framework for the current study by outlining the setting where research activities took place and the methods that were used, as well as providing a background on the local farming industry and an overview of the study participants. Data collection took place in a small Central Florida farming town over the course of a year, allowing for the inclusion of both migrant and seasonal farmworkers in this study. This research draws on the classic ethnographic approach of anthropology in order to create a rich context for understanding obesity among farmworkers. The use of a mixed methods approach, furthermore, allows for interpretations to be made from the triangulation of both qualitative and quantitative data, adding strength to the study findings and thereby providing a solid base for drawing conclusions. The following chapters present the findings from this study.

Chapter 3
Culture, Health, Food, and the Body:
Perspectives of Service Providers and Farmworkers

Cultural factors relevant to the issue of obesity among farmworkers include several aspects. On the one hand, there are the cultural beliefs and practices of farmworkers related to health, food, and the body, which shape the way they perceive obesity, as well as their risk of becoming obese. On the other hand, however, there are also the beliefs and perceptions of clinical staff and service providers, which affect how perceived health issues are addressed and services provided to the community. Health providers are influenced by the culture of biomedicine, which views obesity as a medical condition with specific health implications. This perspective is not necessarily shared by all cultural groups with which health providers interact, and therefore addressing obesity among culturally diverse populations requires an understanding of the particular perspectives of these groups. In some cases, furthermore, health providers already have certain pre-conceived notions about the culture and beliefs of particular ethnic populations, which may or may not reflect the actual beliefs. The beliefs held by health and service providers are just as important as those held by the recipient population in shaping health issues, and therefore this chapter analyzes these two interacting sets of cultural processes in order to understand the implications for addressing obesity.

Farmworkers, Culture, & Obesity: Perceptions of Health & Service Providers

“They don’t come here fat; they get fat after they come here.”

-Sister Margaret, clinic director

“I think they see it (obesity) as a part of life more than anything else.”

-Miguel, Operations Manager, food pantry

This project began out of a concern expressed by the San Juan clinic director, Sister Margaret, over growing rates of obesity and a belief that it was, in part, a cultural issue. For this reason, she had requested a project to cultural beliefs and perceptions about food and the body, so that the clinic could develop a culturally-sensitive intervention to address obesity in the local community. The idea that health disparities can somehow be attributed to “culture” has been gaining ground in the health field, but the concept of culture and the communities served by health providers are not always well-understood. Therefore, I begin by exploring health and service provider perceptions of culture and farmworkers in general before moving into a more specific analysis of farmworker perspectives regarding obesity.

On Culture & Cultural Sensitivity

Having worked with this population for many years, the health and service providers that I interviewed were very familiar with many aspects of farmworkers’ lives. Interviewees considered “understanding the culture” of the individuals they serve as an integral part of their work, emphasizing the importance of being non-judgmental and sensitive to the beliefs of others. As Juanita commented, “you sincerely need to like people, not be presumptuous.” Similarly, Sister Margaret placed emphasis on “the

capacity for someone to understand that perspective that the other has... if their mind is not open and there's not self-awareness... it will never be achieved." Having run the San Juan clinic for ten years, Sister Margaret has trained countless volunteers, particularly medical residents, and considers orienting them to the culture and living circumstances of the community an important aspect of that training. At one of the health fairs I attended, I listened in while Sister Margaret gave a group of physicians and medical students a mini-lecture about what a living wage is, how it varies depending upon the cost of living in a community, and the implications for health. The group appeared very interested and engaged in the discussion, although it was clear from their reactions and the questions they asked that this was a very new learning experience for them. Indeed, my interviews revealed that much of what service providers know and understand about the local community and culture comes from on-the-job learning and experiences.

The perspectives shared by providers indicate that cultural sensitivity is strongly valued in this setting as a crucial aspect of service provision. Additionally, Christine stressed the fact that health programs need to not only understand and accept the cultural beliefs of the people they serve, but also work with the culture to find solutions. She explained that:

"Everyone who works in the program needs to understand and respect the culture and needs to develop with the culture of the people, the community, to develop strategies that will work with their culture. I'm a believer in the culture or community itself developing the issues [to focus an intervention on], but everyone needs to understand and respect the culture."

This ideal was also shared by the other service providers, reflecting an emphasis on community-based programs that reflect locally perceived needs and desires.

Miguel, furthermore, added to this discussion a personal component of understanding through experience. In discussing the issue of cultural sensitivity, he explained:

“To be able to know the people that you’re trying to serve, to have experienced some of the things they’re experiencing... For example, I would probably do better working here than somebody who has never worked in the strawberry fields because I’ve done it. I know what they’re doing here.”

Miguel’s comments touch upon the distinction between sympathy and empathy. From his perspective, having once been a migrant worker himself allows Miguel to relate to the people he works with on a level that service providers without that experience cannot achieve. Reflecting upon his past as a migrant worker, he continued:

“...When I was doing it, I didn’t know what it was, I just did it. Now that I don’t do it and I see other people do it, now I know what it means... A lot of the people that come here really don’t know why they do it. Why do they take the kids out of school, why do they come here in the first place, you know, are some of the questions that they ask. Back then I wouldn’t be able to answer it... but basically it comes back to, if you don’t leave your home country to try to look for something better, for whatever reason, you’re just going to keep struggling, maybe even perish...”

This is not to suggest that individuals without the same background are not suited to work with this population, but that it is perhaps more difficult to truly understand what that life is like without having ever experienced it. Miguel’s comments highlight the ways in which personal experiences create a depth of understanding that cannot be achieved through education alone.

Although providers embraced the importance of cultural sensitivity, as demonstrated in the previous passages, what was meant by and encompassed under the

concept of culture was not always directly addressed in these service settings. In fact, providers admitted that culture was not really something they learned about in their training, but that an understanding of culture was more or less something that they picked up on the job. Interviewees described culture generally in terms of beliefs and viewpoints by which people live and understand the world around them, or as Juanita put it, “the hour glass that they look through.” This basic conception of culture was fairly consistent across interviewees, although each had their own slightly different definition. Sister Margaret, for example, highlighted the influence of family and the way a person is raised in shaping their view and the way they interact with the world. Miguel expanded on this in more depth, reflecting on his own life in the following definition:

“Culture means the customs, conditions, and things that you are used to as a way of life. I knew growing up what I could or couldn’t do, what was expected of me by my parents, what was good, what was bad, the consequences. But I’m talking about what I know. What I know isn’t the same thing as what you know. I have a culture, you have a culture. Not because you’re Anglo and I’m Hispanic, but because there are different ways of growing up and living.”

Miguel’s explanation underlines the fact that culture is more complex than sharing a simple ethnic affiliation, an observation that is all too often glossed over by the public health system’s use of generic census categories.

Even despite their awareness of the diversity of the community they serve, however, interviewees were not immune from making these kinds of generalizations, as for instance when Christine told me, “so with Hispanics, there’s a shared community and there’s a shared culture within the community; there are some overarching cultural similarities.” Although elsewhere in her interview Christine acknowledged that the category “Hispanic” actually encompasses very diverse groups of people with different

nationalities and different cultures, she still saw them as possessing some inherent similarity. Indeed, the pervasiveness of these generic racial and ethnic classifications in our society makes it difficult for even educated individuals to think outside these categories. Variations in the definitions shared with me by service providers highlight to some degree the abstract nature of the culture concept. The lack of clarity among providers regarding what exactly is culture makes it difficult to conceptualize precisely what the relation is to health, making “culture” an easy scapegoat to blame for any disparity that is not clearly understood.

On Health & Obesity

Health and service providers perceived obesity to be a significant and growing problem among local farmworkers. As Christine commented, “increasingly, there is an obesity epidemic that is affecting the Hispanic population,” noting that this is part of a larger trend across the United States. While the use of “Hispanic” as a category for examining health data is notably problematic in that it superficially lumps together ethnically and culturally diverse groups of people, the San Juan clinic confirmed that it is indeed a trend among the local community that they serve. Although the clinic did not have data available on patient obesity rates, staff and volunteers reported that it was something they were seeing “more and more” in the clinic. “It’s big,” Juanita admitted, “especially in the women more so than the men.” Similarly, Miguel informed me, “I see so many, and they’re so young and so obese. If you were to go into the adult education portal (adult education courses offered on site at the Mission), the GED group, most are young women and the majority are obese.” Health and service providers find the high rates of obesity among this population particularly alarming due to the associated health

implications. As Sister Margaret explained, “Scientifically, there’s always been a direct connection with early onset of diabetes and hypertension.” This is particularly concerning for farmworkers because of the extremely high rates of diabetes documented among Mexican-Americans. Interviewees described these chronic diseases as some of the most significant health issues affecting farmworkers.

Health and service providers ascribed the high rates of obesity among the local population to several key factors. One part of the equation, structural and economic constraints, will be discussed in the following chapter. The remaining explanations given by providers entail a combination of cultural factors and lack of education among farmworkers. These beliefs reflect a popular trend in public health, whereby health disparities among ethnic minorities are increasingly attributed to either culture, which is assumed to conflict with the “true” health knowledge of biomedicine, or a general ignorance about health. While interviewees did not believe that these factors are solely to blame for the high rates of obesity they were seeing, they did feel that culture and education play a role.

One belief, expressed to me by Sister Margaret, was that there was a cultural preference for larger body sizes, that this was seen as a sign of wealth, and that there was a general acceptance of obesity among this population. Her concern was that people did not see the connection between health and weight, or understand the health consequences associated with obesity. “I have not felt that they saw that as directly tied to their health issues,” she explained. “My perception is that they don’t relate their weight to the onset of diabetes or hypertension. They don’t see the connection.” This perception was shared by the other providers as well. “I don’t know that they see the relationship [to health]

until we start talking to them,” Juanita told me. Similarly, Miguel added, “They probably don’t know the consequences. Nobody’s probably ever told them that.” The responses shared by providers indicate a widespread belief that obesity is not well understood by farmworkers. This was in part attributed to lack of education. As Miguel explained, “A lot of them didn’t go to school, or went to 2nd or 3rd grade level, and probably don’t know better.” Juanita also lamented this fact: “The high illiteracy rate is pretty astounding, too – you think maybe [among] the older folks, but it’s the younger ones, too.” Low educational attainment, therefore, was perceived to translate to limited health knowledge among community members.

While low education was widely acknowledged by providers as a key factor contributing to obesity, there also persisted beliefs about underlying cultural issues. As Miguel explicated, “I think they see it as a part of life more than anything else. It just depends on who... so I’m thinking it’s just part of who they are.” Miguel’s narrative describes what might be referred to as a culture of ambivalence, whereby he sees farmworkers as complacent about their situation. His perception is that farmworkers accept their hardship and poor health circumstances, including obesity, as part of the basic reality in which they live. This also reflects Sister Margaret’s perception that obesity was treated with greater acceptance in the community.

Health and service providers perceived similar issues with regard to nutrition. Sister Margaret described a combination of “ignorance” about nutrition and cultural processes regarding food and food preparation that create challenges in addressing obesity:

“I still think there is a perception of types of food. Issues about food – hamburger and Coca-Cola – those are rare

things in their countries, they couldn't afford it so they get here and they drink lots of Coke... And not knowing – hamburger healthy or unhealthy? There's a lot of ignorance and a lot of interest relative to nutrition. From the standpoint of reading and understanding nutrition labels. These labels don't exist in other countries. Every class [that I teach] has been blown away by the portion size. They don't understand portion size, and again, they don't use measuring cups. They don't cook like we do, they use their hand, they don't use a measuring cup. If you visited all these apartments, less than 10 % would have measuring cups or spoons.”

Providers did their best to promote educational services to the community, including nutritional education. They stressed, however, that the provision of nutritional education needed to be culturally relevant to the population, as discussed by Juanita:

“It would be great to have classes of food demonstrations – for example, cooking classes. We had a dietician here who had food samples and information on what to use that's healthier – needs to be something fun, dynamic, that's not lecturing, and also have samples that are appropriate for Latinos – examples are usually American, not specific to Latinos. [They] have to be pertinent to the foods they are used to eating.”

Overall, these responses indicate that service providers perceive a need for educational interventions to address obesity that are culturally sensitive and relevant to farmworkers, which includes talking about health and the body in ways that are understandable to farmworkers and respectful of their cultural beliefs, and using foods that are familiar to farmworkers for nutritional education.

Cultural Conceptions of Health, Food & the Body

While the above discussion outlines providers' beliefs and concerns about farmworker health, and obesity in particular, the remainder of this chapter will examine farmworker perceptions. Health and service providers believed that farmworkers do not

understand the relationship between health and weight and have little knowledge about nutrition. In order to understand whether provider perceptions accurately reflect farmworker beliefs and knowledge, interviews with farmworkers explored their perceptions about health, food, and the body.

Although these interviews focused on perceptions of food and the body in relation to health, they also served as an opportunity to explore concerns and perceived needs identified by farmworkers. Since the issue of obesity was a topic identified by the clinic, it does not necessarily represent the concerns or interests of the community, and even service provider interviewees expressed a belief that the community does not perceive it as an issue.

As a result, one of the initial questions asked farmworkers what they would like to know or learn about health. Interviewees provided a wide range of responses, although obesity was in fact not one of them. The most common response (72% of interviewees) was for general information about diseases, including information about prevention. Two specific diseases that were mentioned, furthermore, included cancer and diabetes, possibly indicating greater community awareness around these issues in particular. This is not surprising, considering that the San Juan clinic conducts a great deal of health promotion, in conjunction with other local organizations, around both diabetes and cancer. Additionally, several individuals (22%) also expressed interest in learning about various aspects of children's health. Overall, these responses suggest that farmworkers have interest in learning about an entire spectrum of health topics, and that there is a genuine perceived need for health information and education among this community in general. This does not, however, mean that farmworkers do not know anything about

health. As the following sections demonstrate, farmworkers possess a wealth of knowledge and awareness about health, some of which coincide with the biomedical perspectives of health providers, and some which do not.

Culture, Food, & Nutrition

Depending upon a number of factors, such as upbringing, education, and how long they have lived in the United States, farmworkers may vary considerably in terms of their nutritional knowledge, food consumption patterns, familiarity with various foods, and conceptions about food in general. A free listing activity that was conducted at the beginning of this project asked farmworkers to first list their favorite foods, and then list the foods that they had consumed the previous day. This activity revealed that many farmworker families continue to eat traditional Mexican foods, including staples like rice, beans, and tortillas, but “American” foods, such as hamburgers, are also consumed by some. Children in particular are often quick to adopt American foods; many families reported that their children like foods such as hot dogs and chicken nuggets, but they (the parents) prefer to eat traditional foods. Understanding these food patterns and preferences is important from a nutritional perspective, as a successful intervention will need to address those foods that are familiar and culturally acceptable to the community.

Interviews with farmworker participants explored conceptions about food and nutrition through a pile sorting activity using the food list generated through the free listing process described above. (A complete list of foods included in this activity can be found in Appendix B.) Food data was collected with female participants specifically, under the assumption that women are primarily responsible for household food preparation. This was confirmed by female interviewees; the majority reported that either

they alone purchase food for the household ($n = 10$) or they buy the food together with their husband or partner ($n = 5$), and all but three reported that they are solely responsible for the preparation of meals for the household. Since women handle most of the food purchasing and preparation for the household, they are in a position to assert influence over the foods that are consumed by the family, and represent a key source for information about cultural food knowledge.

Categories of food represent a culturally-constructed domain. Findings from the pile sort show that farmworkers think about food in many different ways. Initially, participants were allowed to sort the food items into as many piles as they chose. Weller and Romney (1988) note one phenomenon that arises from an unconstrained pile sort of this nature is what is referred to as “lumpers” versus “splitters.” Participants can generally be categorized as either “lumpers,” those who sort items into as few piles as possible (typically two), or “splitters,” those who will sort items into many smaller piles. Participants in this study sorted food items into between two and eight piles. Eleven individuals were “lumpers” who sorted the food items into two or three larger piles, and six were “splitters,” sorting the items into four or more smaller piles; one individual did not complete the activity because she had to leave for her appointment before finishing the interview. A multidimensional scaling analysis revealed an interesting pattern in the grouping of food items (Figure 2). The purpose of this analysis was to ascertain general patterns in how participants grouped food items; thus, the closer two items appear on the graph, the higher the frequency with which they were grouped together by participants. Three main groups of food emerged through this analysis; a few food items did not group

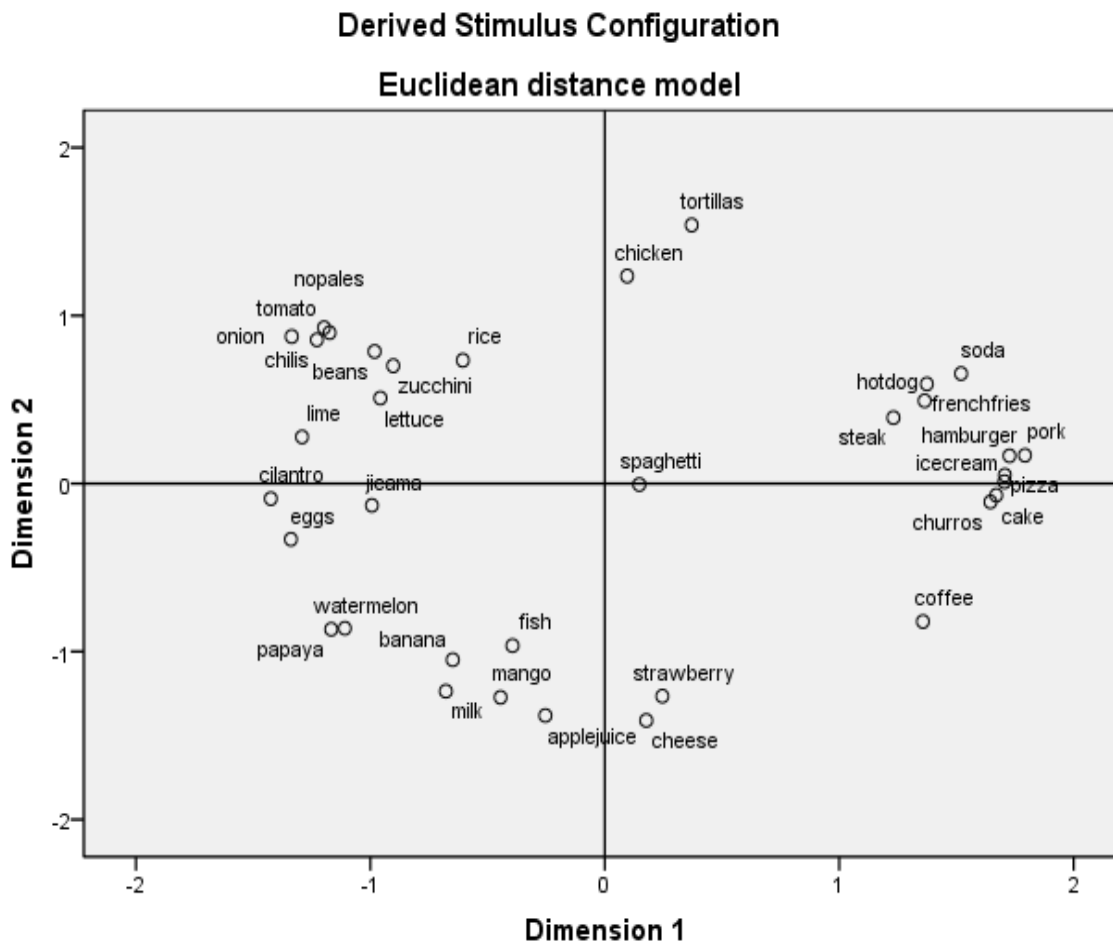
particularly well, but rather, seemed to stand alone in the spatial arrangement that was derived.

Participant explanations of food categories provide further insight to this analysis. Four main systems for organizing food items were described by participants: 1) meal, or time of day that foods are eaten ($n = 4$); 2) foods that are eaten frequently versus foods that are only eaten occasionally ($n = 4$); 3) foods that are eaten together ($n = 3$); and 4) food groups along the lines of the food guide pyramid, such as fruits, vegetables, meats, dairy, grains ($n = 4$). Additionally, one individual sorted the items based on personal preference (likes and dislikes) and one sorted them based on perceived nutritional value (healthy vs. unhealthy). The diversity of responses and systems for sorting food items found here indicates that there are many different ways of thinking about food among this population.

One interesting pattern arising in this data is what appears to be a distinction between traditional food items and American foods. American food items (pizza, hot dogs, French fries, etc.) were most typically sorted into categories of infrequently or occasionally consumed foods, “junk foods,” or an “other” category, indicating that these foods are not regularly eaten by farmworkers and perhaps do not easily fit within their framework for conceptualizing food. Interestingly, steak and pork were also grouped together with these foods. Although these foods are not outside the traditional diet of Mexicans, it is possible that they are consumed less frequently than other foods, due to either cost, perceptions of healthiness, or some combination of these factors. The other main distinction appearing from the multidimensional scaling analysis appeared to occur based on the time of day that foods are consumed. Food items that were described by

many as being consumed earlier in the day (breakfast, morning, or early afternoon) tended to form one cluster, including many fruits, juice, milk, and cheese, while foods described as being consumed later in the day (evening or dinner foods) formed the other cluster, including staple foods such as rice and beans, as well as items that are often used in the preparation of traditional Mexican cooking, such as chilies, cilantro, and lime.

*Figure 2: Spatial Arrangement of Food Items Sorted by Farmworker Participants**



*Results of Multidimensional Scaling Analysis

Chicken and tortillas, interestingly, stand alone in this spatial arrangement. Overall, this general pattern shows that the most common way of thinking about food among this sample was in terms of foods that are most typically consumed together. Although some participants described food groups similar to those outlined by the USDA food pyramid, the majority did not, suggesting that this is not a common framework for conceptualizing food within this community.

After completing this first pile sort, participants were asked to sort the food items again, this time with the specification that items were to be sorted into two piles: healthy foods and unhealthy foods. Through this activity, I was able to explore basic conceptions of nutrition, although detailed nutritional knowledge obviously cannot be assessed from this data. A consensus analysis was performed on the data to determine the extent to which there is cultural consensus on the classification of these food items. This analysis produced an eigenratio of 5.189, and there were no negative competencies, indicating a good fit to the consensus model. Table 2 shows the classification of food items as healthy or unhealthy according to the consensus model, and the proportion of individuals classifying each item as such. Food items for which participants had lower levels of agreement include pork (58% classified as unhealthy), steak (53% classified as healthy), and tortillas (65% classified as healthy), suggesting that there are less clear perceptions regarding the healthiness of these food items.

Additionally, while participants did demonstrate high levels of consensus regarding the healthiness of food items, these perceptions do not necessarily align with the nutritional guidelines established by the USDA (2005). A good example from this data is the classification of apple juice. There was considerable agreement among

participants that apple juice is a healthy food. Many brands of apple juice, however, contain large amounts of sugar and are high in calories, making it a not particularly healthy beverage choice from the biomedical perspective. This is not necessarily a cultural belief specific to farmworkers, however, as many Americans have misperceptions about the nutritional value of various food items. Overall, the findings from this consensus analysis suggest that many perceptions of nutrition held by farmworkers reflect conceptions of nutrition promoted by U.S. health institutions, but that some differences may exist in ideas of nutrition.

Comments shared by participants, as well as personal observations, also provide some further insight into these results. Many participants seemed to find at least some of the food items difficult to sort, providing explanations that particular foods were okay to eat “*a veces*” (sometimes) or “*de vez en cuando*” (once in a while). Others admitted that they did not know whether certain foods were healthy or not, and attempted to sort the items as best they could. In contrast, a few participants divulged extensive nutritional information as they sorted the items. For example, Francisca, a 44 year old homemaker from a farmworker family, described to me various health aspects of each food item, explaining that bananas are a good source of potassium, watermelon is okay but high in sugar, chicken is healthier if you remove the skin, and so on. The range of responses elicited through this activity demonstrates two key findings. First, the extent of nutritional knowledge is highly variable among community members; although nutrition may not be clearly understood by all, and ideas about nutrition may in some cases differ from those proposed by USDA guidelines, farmworkers do perceive the relationship between health and food and should by no means be presumed ignorant. Second, nutrition is very

complex, and this complexity cannot be captured by simple classifications of healthy and unhealthy. Farmworkers do realize this complexity, and they require information that addresses the complexity of their personal nutritional needs.

Table 2: Nutritional Classification of Food Items Sorted by Farmworkers

Food Item	Classification	Proportion
Chicken	Healthy	.88
Nopales	Healthy	.94
Coffee	Unhealthy	.94
Cheese	Healthy	.88
Soda	Unhealthy	1.00
Onion	Healthy	.76
Lime	Healthy	.71
Pork	Unhealthy	.59
French fries	Unhealthy	.94
Zucchini	Healthy	.94
Papaya	Healthy	.94
Rice	Healthy	.94
Chilies	Healthy	.76
Hot dog	Unhealthy	.94
Jicama	Healthy	.88
Banana	Healthy	.94
Mango	Healthy	.82
Spaghetti	Unhealthy	.71
Fish	Healthy	.88
Cilantro	Healthy	.88
Hamburger	Unhealthy	1.00
Cake	Unhealthy	.94
Lettuce	Healthy	.94
Tomatoes	Healthy	1.00
Ice cream	Unhealthy	.88
Steak	Healthy	.53
Pizza	Unhealthy	1.00
Strawberry	Healthy	.82
Watermelon	Healthy	.88
Churros	Unhealthy	.94
Tortillas	Healthy	.65
Apple juice	Healthy	.88
Milk	Healthy	.94
Eggs	Healthy	1.00
Beans	Healthy	.88

In addition to understanding cultural conceptions of food, interventions that address the specific interests, concerns, and perceived needs of communities are more likely to be well-received. In order to explore farmworker concerns and desires, therefore, participants were also asked about what kinds of information they would like to receive from the clinic about food. Overall, participants expressed a general interest in learning about nutrition and food preparation. Slightly more than half ($n = 10$) responded that they would like to know more about nutrition, including information about which foods are healthy and which are unhealthy, how to eat healthier, and nutritional information for children. Several individuals, furthermore, expressed interest in learning more about cooking and how to prepare new foods and recipes. The responses of participants indicate that they would be receptive towards educational programming on nutrition, and that specialized courses geared towards the needs of different groups (for example, children, pregnant women, diabetics, etc.) would be particularly beneficial. However, educational interventions should be constructed with respect to the cultural framework of the community, using foods and food categories that are both familiar and culturally-relevant to the population, but also recognizing the diversity that exists among individuals. In the case of farmworkers, this might entail a strong focus on traditional foods, while also addressing the need for information about American food items to which farmworkers are increasingly exposed. Interactive programming that combines nutritional education with cooking instruction, furthermore, could also help to increase the appeal to community members, and could also serve as a means to introduce new foods that may be less familiar to this population.

Constructing the Body: Perceptions of Health & Desirability

Although health and service providers indicated that they do not believe farmworkers perceive a relationship between health and weight, farmworker interviews suggest otherwise. Farmworker interviewees demonstrated very clear ideas about the connection between health and body size. Using the Body Silhouette Rating Scale (Appendix A) described in the previous chapter, farmworker participants identified the body that they believed most closely resembled their own and the bodies that they believed to be most and least healthy. They also answered a range of additional questions using this scale to examine perceptions of desirable body sizes, including the figure perceived to be the wealthiest, the most attractive (opposite gender), and the figure they would prefer to look like. Participants were asked to answer these questions using the body silhouettes of their own gender, except in the case of a few specific questions asked about the opposite gender. Mean scores provided by farmworker participants in response to questions about the Body Silhouette Rating Scale and analyses of differences based on demographic characteristics are discussed in this section.

Participants reported a mean score of 5.98 for their current body size, indicating that the average body size among this sample was just slightly past the midpoint (5) on the body scale. Mean scores for each of the body scale questions are presented by gender in Table 3. No significant differences were found between men and women in self-reported body size. Gender differences did emerge, however, in perceptions of the healthiest body, with women identifying significantly smaller body sizes ($x = 3.83$) as healthiest as compared to those identified by men ($x = 6.0$). A Mann-Whitney test determined that this difference was statistically significant ($p = 0.006$). In order to further

explore whether this finding represents a difference in the overall perceptions of men and women towards health, or whether it represents a difference in terms of gendered constructions of the body, female participants were also asked to identify the healthiest body from among the male figures. In response to this question, women provided a mean score of 4.74, which was significantly smaller than the men's score of 6.0 ($p = 0.046$) according to another Mann-Whitney test, and was also significantly larger than the score women gave for the female figure according to a Wilcoxon matched-pair test ($p = 0.007$). The results of these analyses suggest that the difference between men's and women's scores is due to a combination of both differences in perceptions of health between men and women and cultural constructions of gender that value thinner female bodies.

Table 3: Comparison of Male and Female Responses to Body Scale Questions

Question	Mean Score		p-value ¹
	Female	Male	
Current body	6.029	5.857	.797
Healthiest body	3.833	6.000	.006*
Wealthiest	6.917	7.000	.849
Ideal body (self-preference)	4.500	5.571	.052
Most attractive (opp. gender)	4.735	4.333	.669
Preferred spouse (opp. gender)	5.118	4.714	.973

¹Results from Mann-Whitney U-test.

*Denotes that a difference exists at a significance level of 0.05.

Perceptions of desirability are influenced by more than ideas about health; therefore, other aspects of what makes a particular body size desirable were also explored and then compared to these perceptions of health. Participants were asked to identify which figure on the rating scale they would prefer to look like (their ideal body) as well as which figure of the opposite gender they found most attractive and which they would

prefer as their spouse. As can be seen in Table 3, mean scores for each of these questions ranged between 4 and 6 on the Body Scale. No significant differences were found between men's and women's scores for any of these items, although the Mann-Whitney test comparing ideal body scores shows that this difference is almost significant ($p = 0.052$). It is possible, therefore, that the current study simply did not have enough power to find a difference in these scores, but a larger sample size might produce a significant finding. Mann-Whitney tests also compared personal perceptions of ideal body size with the opposite gender's perceptions of most attractive figures (i.e. women's self-reported ideal body size was compared to men's rating of most attractive female figure, and vice-versa) to examine the extent to which conceptions of ideal male and female figures are shared across gender groups. Again, no significant differences were found between men's and women's perceptions, suggesting that these ideas about ideal male and female figures are shared across gender. Additionally, women were also asked about their perception of which female body they believe men find most attractive, both in order to understand the extent to which these perceptions are culturally shared across gender, as well as to understand how women's beliefs about what men find attractive may influence their own perceptions of their bodies. A Mann-Whitney test showed no difference between women's perceptions of male preference and men's actual reported preference ($p = .249$), indicating that women do accurately perceive what men find attractive. Since there was also no difference between men's rating of most attractive figure and women's ideal body score, this may suggest that women's ideas about their own bodies are shaped to some extent by their beliefs about men's preferences.

One interesting difference that did emerge from the data was in perceptions of most attractive figure compared to ratings for preferred spouse. Both male and female respondents selected larger figures as their preference for a spouse as compared to the figures they selected as most attractive. A Wilcoxon matched-pairs test showed that this difference was significant ($p = 0.009$), although follow up tests indicate that the difference appears to occur primarily among women (see Table 4). Why this difference in scores exists is impossible to determine from the current study, but it appears that cultural ideas regarding what qualities make a good spouse differ from those that make a person attractive, or at the very least that attractiveness is not the only quality that individuals look for in a spouse. Several individuals, including both men and women, explicitly stated that size or appearance does not matter, and that compatibility is more important, providing further indication that attractiveness is only one of many qualities a person may value in a spouse.

The last dimension of desirability that was assessed examined perceptions of the relationship between the body and wealth. Male and female respondents were both asked to identify which figure on the Body Scale they believed was the wealthiest. A mean score of 6.94 was given for wealthiest body, with no significant differences between men's and women's scores (see Table 3). Responses to this question were quite variable, however, ranging from a score of 3 to that of 9, and eight individuals declined to provide a response. Based on this finding, there seem to be some perceptions that wealth is associated with being fatter, such as the belief expressed by Teresa, a 39-year-old farmworker, who selected Figure 9 as the wealthiest "*porque consume más comida*" (because she consumes more food). Greater wealth, therefore, is equated with greater

food intake. Not all participants possessed this belief, however, and some even expressed the opposite belief. For example, Francisca, a 44-year-old wife of a farmworker, selected Figure 3 as the wealthiest, explaining that this figure is thin because she can afford to eat well and has time to exercise. Francisca's explanation indicates that, in contrast to the idea expressed by Teresa, she perceives a connection between wealth and thinness. Several individuals, furthermore, stated that one cannot tell by a person's body size, indicating that there may not be any widely held conception about the relationship between wealth and the body.

Next, this analysis compares various dimensions of body desirability to understand how these different perceptions interact with one another to shape ideas about and preferences for certain body types. A series of Wilcoxon matched-pair tests were performed first in order to compare healthy, ideal, attractive, wealthy, and current body scores. Tests were run first on the combined male and female data together, and were then run separately by gender to account for gender differences described previously (i.e. in healthy body scores). The results of these tests are summarized in Table 3. As this table demonstrates, differences were found primarily among the female data. For example, there were significant differences between women's scores for current body and healthiest body ($p = .006$), as well as between scores for current body and ideal body ($p = .010$), whereas men's scores were not significantly different for any of these items. This finding suggests that women have greater body dissatisfaction than men, despite there being no significant gender difference in current body size, which may indicate a greater acceptance of being overweight among males. Additionally, women's scores also differed between healthiest body and ideal body ($p = .021$), suggesting that perceptions of health

alone do not determine body preferences. It is interesting that women identified larger body sizes for their ideal than they did for healthiest body, which may indicate that this population does not feel as much pressure to be overly thin as is often found among many American women; however, the bodies that they did identify were by no means in the overweight range, so neither is there indication for a cultural preference towards obesity.

Table 4: Comparison of Different Dimensions of Body Desirability

Dimensions	Female¹	Male²	Combined³
Current body vs. Healthy body	.006*	.832	.014*
Current body vs. Ideal body	.010*	.683	.012*
Healthy body vs. Ideal body	.021*	.257	.187
Healthy body vs. Wealthy body	.010*	.273	.005*
Most attractive vs. Preferred spouse	.029*	.317	.009*

¹Results of Wilcoxon matched-pairs tests, female data only

²Results of Wilcoxon matched-pairs tests, male data only

³Results of Wilcoxon matched-pairs tests, male and female data combined

* Denotes that a difference exists at a significance level of 0.05

Since various studies have suggested that perceptions of healthy and ideal bodies may be influenced by factors such as weight or acculturation (i.e. Cachelin et al 2005), correlational analyses were performed to look for relationships between different body ratings and demographic factors. Spearman coefficient tests were conducted to look for correlations between current body size and perceptions of the healthiest body and ideal body, but no relationship was found. Similarly, no correlation was found between length of U.S. residence and perceptions of the body, or between length of residence and current body size. Since no participants reported fluency in English, and only a small number reported speaking “a little” English, using language as a measure for acculturation did not seem appropriate for this study. A positive correlation did emerge between current body

size and perceptions of the most attractive body of the opposite gender ($p = .011$), although interestingly, current body size did not correlate with scores for preferred spouse. The results of these analyses are summarized in Table 5. Overall, these findings indicate that neither weight nor acculturation (as measured by length of residence) are related to perceptions of health or personal body preferences, but weight does appear to be related to perceptions of attractiveness towards the opposite gender.

Table 5: Correlational Analyses of Body Scale Ratings & Socio-demographic Factors

Dimensions	Correlation Coefficient	p-value¹
Length of Residence, Current Body	-.294	.163
Length of Residence, Healthiest Body	.062	.773
Length of Residence, Ideal Body	.056	.794
Current Body, Healthiest Body	.076	.723
Current Body, Ideal Body	.229	.282
Current Body, Most Attractive	.511	.011*
Current Body, Preferred Spouse	.291	.168

¹Results from Spearman correlation test

*Denotes that a difference exists at a significance level of 0.05

I turn now to perceptions of unhealthy bodies, as opposed to those of healthy and desirable bodies. Analysis of ratings given for the least healthy body requires a different approach from the analyses described above. Across the board, respondents identified either the largest figure (9) or the smallest figure (1) as having the least healthy body. That participants selected from the extreme ends of the scale in answering this question is not surprising, but it does render calculating a statistical mean useless for analyzing this data; therefore, frequencies are used instead to describe this data. Frequencies of responses are depicted by gender in Table 6. Some individuals gave two responses,

selecting both the largest and smallest figures, and therefore the number of responses shown in this table is greater than the actual sample size.

An interesting pattern arose from this data, whereby women were more likely to select the largest figure as least healthy, while men were more likely to select the smallest figure. A Pearson Chi-square test performed on this data yielded a p-value of 0.041, however, the small sample size indicated the need to conduct a Continuity Correction, resulting in a p-value of 0.104. It is possible, therefore, that a larger sample size could reveal a significant difference, but the current study does not have the power to produce this finding.

Table 6: Frequency of Responses for Least Healthy Body

	Body Scale Figure 1	Body Scale Figure 9	Total # Responses
Female	5	14	19
Male	6	3	9
Total	11	17	28

The quantitative data described here about perceptions of the body was further supplemented with some open-ended questioning among female respondents regarding general perceptions of different body sizes and how individuals achieve particular bodies. Following respondents' identification of the healthiest body, they were asked what a person needs to do to obtain this body. There was fairly extensive conformity among the responses given by interviewees. Eleven out of 17 participants mentioned exercise, and 15 discussed some aspect of diet or nutrition as important for attaining a healthy body. Discussions of diet ranged from vague statements, such "eating well" or "eating healthy"

to more specific details, such as “eat less fats” or “eat vegetables,” although these responses were far less common. Similarly, participants were also asked about what they personally need to do in order to obtain their ideal body. The responses provided for this question were very similar to those given regarding achieving a healthy body. Since most participants reported a desire to be thinner than they currently were, responses were generally that they needed to exercise more (n = 15), eat better (n = 9), or eat less or lighter (n = 4). These responses reflect the same basic information promoted by health education programs targeted at addressing obesity.

Participants were also asked, after identifying the least healthy body, to explain what causes a person to become this way. Again, a variety of responses were provided, most of them pertaining to food and diet. For women who selected the largest figure as least healthy, the most common responses were that this person eats too much (n = 8) or does not eat well (n = 6). Specific responses included statements such as, “*no come comidas alimentas*” (she does not eat nutritious foods), “*no come vegetables*” (she does not eat vegetables), “*come chocolates*” (she eats chocolates), or “*come mucha azucar*” (she eats a lot of sugar). These responses indicate that participants have a very strong understanding of the role that diet plays in obesity. Two individuals also mentioned lack of exercise, but the vast majority did not discuss this aspect, although their responses about obtaining a healthy body clearly indicate that they understand the importance of exercise.

Additionally, a few individuals discussed other aspects of both physical and mental health in relation to this question. For example, Isabel, a 29-year-old farmworker, said that depression causes a person to become overweight, indicating an understanding

of the connection between mental and physical health, and that when people are not well mentally, they may stop taking care of themselves physically. She also said the same about the thinnest figure, demonstrating an understanding that depression can cause a person to gain or lose weight. Other responses, furthermore, included statements that the overweight figure has an illness or disease (*enfermedades*), with one woman specifically stating that “*se enferma de corazón*” (she has heart disease), indicating an understanding that the condition of being overweight is specifically linked to physical diseases, such as heart disease. The responses described here indicate that the community perceives a variety of factors as causing a person to become overweight, but food consumption is most commonly viewed as directly related to weight.

Finally, in order to explore self-determined perceptions of different body sizes, female participants were also asked to describe the various Body Scale figures in their own words. This line of questioning produced some very interesting results that, in conjunction with the quantitative body data, provide additional insight into the ways in which members of this community think about the body. Participants were asked how they would describe Figure 1 (the thinnest figure), Figure 3, Figure 5 (the midpoint on the scale), Figure 7, and Figure 9 (the largest figure). Responses indicated that the women involved in this study viewed Figures 3 most favorably, describing this figure as normal, *ni flaca ni gorda* (neither skinny nor fat), and *saludable* (healthy). One individual felt that this figure was too thin, describing it as *desnutrida* (undernourished). The vast majority, however, felt that this figure was a good size, whereas Figure 1 was perceived by most to be too thin. Figure 1 was described by many as either *flaca* (skinny), or *muy delgada* (very thin), and was also inferred as having health problems. Two individuals, for

example, described this figure as having either anorexia or bulimia, three described the figure as being *desnutrida* (undernourished), and two commented that this figure is *enferma* (sick). On the other end of the scale, both Figures 7 and 9 were unanimously perceived to be overweight. Figure 7 was described as *poquita gordita* (a little fat), *pesado de peso* (heavy or overweight), *rellenita* (from *relleno*, literally meaning stuffed or filled, in this context referring to someone being a little fat or overweight), and even *poquita obesa* (a little obese). Figure 9 was described almost exclusively as either *obesa* (obese) or *gorda* (fat), although a few individuals described this figure as *enferma* (sick) and *triste* (sad). Finally, Figure 5 proved to be the most contested of the bodies. While a majority described this figure as normal or “*más o menos bien*” (more or less well), several individuals (n = 4) described Figure 5 as *poquita gorda* or *rellenita*. Overall, responses suggest that participants perceived Figures 3 to 5 as most healthy, with both overweight and underweight figures generally being described negatively.

Comparing Farmworker & Health Provider Perspectives

The final component of this analysis compared farmworker perceptions of the body to those of health providers working at the San Juan clinic. Providers were asked to complete a questionnaire that included a number of the same questions asked of farmworkers using the Body Silhouette Rating Scale. Since it was hypothesized that gendered constructions of the body may exist, leading to different ideas about male and female bodies, the questionnaires given to health providers inquired into perceptions of both the male and the female body. Mean scores for health provider responses are presented in Table 7, along with comparative farmworker scores. Mann-Whitney tests were conducted to assess differences between farmworker and health provider responses.

Only one of these tests yielded a significant result: farmworker mean scores were significantly higher than those of health providers with regards to the Body Scale figure perceived to be the wealthiest ($p = 0.023$). This finding suggests that there may be a perceived association among farmworkers between wealth and slightly heavier body sizes, but this does not necessarily mean that obesity is perceived as an indicator of wealth. Farmworkers varied considerably in their responses to this question, with scores ranging from 3 to 9 on the Body Scale. A number of individuals, furthermore, declined to answer this question, stating either that they did not know which figure was wealthiest, or that it is impossible to tell someone's wealth from their body size, indicating that there may not be any widely held cultural conceptions about the relationship between wealth and weight among this population. There were no significant differences in scores between farmworkers and health providers on any of the other items, indicating that overall, farmworkers and health providers share similar ideas about healthy and desirable body sizes.

Table 7: Comparison of Farmworker and Health Provider Responses to Body Scale Questions

Question	Mean Score		p-value ¹
	Farmworkers	Health Providers	
Current body	5.979	7.200	.159
Ideal body	4.771	5.200	.652
Most attractive (opp. gender)	4.646	5.250	.658
Healthiest body - female	3.833	4.800	.206
Healthiest body - male	6.000	5.000	.792
Wealthiest	6.938	4.375	.023*

¹Results from Mann-Whitney U-test.

*Denotes that a difference exists at a significance level of 0.05.

Summary

The fact that no significant differences (other than in perceptions of the wealthy body, which received rather mixed responses from farmworkers) emerged between farmworker and health provider responses suggests that, overall, farmworker perceptions converge with biomedical constructions of the body. In contrast to the beliefs of health providers, therefore, the data presented here show that farmworkers do perceive a relationship between health and the body, which aligns for the most part with conceptions of the healthy body perpetuated by biomedicine. The combination of quantitative and qualitative data described in this chapter indicates that farmworkers are in fact very perceptive about the relationship between health and weight and are well aware of the role that diet and exercise play in achieving and maintaining a healthy weight. Furthermore, these findings demonstrate that there is not a cultural preference for overweight or obese bodies. In fact, it is interesting to note that farmworkers actually identified smaller body sizes as the ideal and most attractive figures as compared to health providers, although these differences were not significant, and if anything, the mean score provided by female farmworkers for healthiest body might be considered slightly underweight from a biomedical perspective. Based on these findings, it would seem that cultural preferences and beliefs about the body are not a major factor contributing to the high rates of obesity among Latino farmworkers. The next chapter, therefore, seeks to create a richer context for understanding obesity by examining structural factors affecting farmworker health and nutrition.

Chapter 4
Cultivating Poverty:
Structural Inequalities and Implications for Farmworker Health

The cultural processes described in the previous chapter tell only part of the story, and in the case of obesity, do not adequately explain the disparity that exists. As eluded to in the beginning of this manuscript, structural factors play a key role in shaping farmworker health outcomes, and a holistic analysis of obesity among farmworkers must include an assessment of this broader context. This chapter, therefore, builds upon the findings described in the previous chapter by exploring the larger social, political, and economic context that frames farmworker lives, with a particular emphasis on the structural constraints contributing to poor health outcomes among this population.

The year 2010 has been particularly difficult for farmworkers. With the U.S. economy still nowhere near recovery, the agricultural industry has suffered along with many other American businesses. The cold freeze that hit Florida this winter has further exacerbated the local circumstances. Like many others, farmworkers have found themselves unemployed or underemployed. “Ahorita, no hay trabajo,” Lupe, a 21-year-old farmworker from Hidalgo, Mexico told me in December [Right now, there is no work]. Lupe had returned to Florida for the strawberry harvest, along with her boyfriend and their young son; neither one had been able to find work at the time of the interview. Her sentiments were echoed by other farmworkers, who, like Lupe, struggled to find

work during these hard economic times. Unlike American citizens, however, workers such as Lupe cannot collect unemployment, qualify for welfare, or sign up for Medicaid. In many cases, their immigration status bars them from government-funded social and health services, leaving them in a precarious position and largely dependent upon the generosity of charity organizations.

The cultural constructions of food and the body discussed in the previous chapter must be framed within this larger context of political and economic constraints. The ability of farmworkers to pursue healthier eating patterns and lifestyles is severely limited by low wages, lack of employment opportunities, and limited access to services. These structural processes have serious implications for farmworker health, particularly when it comes to nutrition and diet-related health problems. Interviews with both farmworkers and service providers stressed the impact that structural constraints have on farmworkers' lives. I move, therefore, to an examination of the impact that poverty, lack of resources, and barriers to accessing services have on farmworker health in general and obesity in particular.

Low Wages, Unemployment, & Poverty

“El trabajo no está bueno. No hay mucho dinero.”
[The work is not good. There is not much money.]
 -Maria, farmworker, age 27

“Gano muy poquito, como cien ochenta (por semana).”
[I earn very little, like \$180 (per week).]
 -Ana, farmworker, age 38

That farmworkers in the United States are paid incredibly low wages is a well-established fact. Estimates from other studies suggest that, on average, most farmworkers earn between \$5,000 and \$10,000 per year (Shotland 1989, Sandhaus 1998, Shimberg Center 2004), placing them well below the poverty line. The present study found that among those who were currently employed, farmworker participants earned an average (calculated statistical mean) weekly income of \$273. Half of the respondents, furthermore, reported having only one worker in their household, meaning that these meager wages have to support the entire family. With a mean household size of 4.72 people, this is no simple feat. Several participants, furthermore, emphasized the immense variability in their earnings, like Javier, who commented that, “It varies. One week it’s \$150, the next it’s \$500.” Since farmworkers are typically paid based on how much they pick, rather than an hourly wage, income is largely unpredictable and can vary greatly from week to week. No significant differences were found in reported income between employed male and female respondents, although very few female respondents had incomes to report (as detailed in the following paragraph). There were also no significant differences in income based on length of residence in the United States.

Perhaps even more disheartening were the high rates of unemployment among this population, which seems to have particularly affected women. Slightly over half ($n = 13$) of the research participants reported being currently unemployed, all of whom were women. A Chi-square test demonstrated that women were significantly more likely to be unemployed than men, with a significance value of .005 when the Yates’ correction for continuity was applied due to small sample size. Although for some women this was a voluntary decision, who explained that their job is *en el hogar* (in the home), many

participants explicitly stated that there simply was no work available. This issue was also perceived as connected to health, as Yolanda, a 63-year-old farmworker explained, “*No hay trabajo. No tengo dinero. No puedo ir al doctor.*” [There is no work. I have no money. I can’t go to the doctor.] The high rate of unemployment among women in this sample suggests that women are especially vulnerable to poor health and nutritional outcomes associated with poverty, particularly if they are unmarried. Concern over the lack of employment opportunities was expressed repeatedly among the female farmworkers with whom I spoke, as demonstrated by the story about Lupe. Slightly over half the female respondents (n = 10) described work and/or money as being a primary concern in their life.

Low income, lack of employment, and the implications that these factors have on health were also recognized by service providers. “There is lack of work... people... they don’t have enough food,” Juanita, the clinic nurse, expounded when I inquired about unmet community needs. The reality of this statement is further illuminated by the data collected from participants regarding food expenditures. On average, the farmworkers I interviewed reported having a mean of \$133.61 available for weekly household food purchases. When applied to the mean household size of 4.72 persons, this comes out to roughly \$28 per person per week, or only \$4 per person each day. With so little money available for food expenditure, it is undoubtedly difficult to provide adequate and nutritious meals for the household, leaving farmworkers highly vulnerable to food insecurity.

Service providers were very much aware of this reality. As Juanita explained, “Foods may be available because there are a lot of small grocery stores, but they’re not

always affordable.” Although there are several local food ministries in the area, these typically give out a lot of grains and staple foods, but do not provide fresh fruits and vegetables. Both Sister Margaret and Miguel further expanded on the problem of food insecurity, as in the following excerpts:

“They’re stretching things like anyone else. I don’t think migrants are different than any other poor person. I think probably they are, if anything, they might be a tad less knowledgeable about getting to the food pantries, and so they will stretch what they have available.”

-Sister Margaret

“Because of everything else that they need to cover, everything from paying for a ride to putting gas in the car, to paying for insurance if they even have it to begin with... just takes up a big chunk of their money. Plus, they don’t get paid enough to begin with. They’re never going to be on the plus side, always going to be struggling.”

-Miguel

There are serious nutritional consequences that accompany the experience of food insecurity. These may entail both inadequate food consumption and consumption of less nutritious, but more affordable, food items. Sister Margaret noted that, “They can get plenty of unhealthy food... They can get a lot of beans and a lot of rice, but it’s not always the healthy stuff that they can get.” Service providers acknowledged that as much as they try to provide nutritional education, their clients simply cannot afford to purchase healthy foods, such as fresh fruits and vegetables. Thus, low wages coupled with the greater affordability of less healthy, processed foods place farmworkers at increased risk of developing obesity.

Limited Resources, Unmet Needs

I arrived at the clinic at 4:00 pm for a scheduled interview with Juanita. When I entered, there was a young man sitting in the reception area. Juanita had just arrived herself, and apologized to me, saying that she needed to find out what the man wanted first, and then she would be right with me. I took a seat and waited while Juanita and the man disappeared into the next room. After several minutes, Juanita came out and made a phone call to Sister Margaret, who was not yet in. The outcome of the call did not sound promising. Juanita went back into the other room where the man was waiting, and a few more minutes passed before they both returned to the reception area. The man left, and Juanita motioned for me to come with her to one of the back exam rooms where we could do the interview. Her face looked grim, and as we walked, she recounted the man's story for me. He apparently had a urinary tract infection, and for several weeks had been experiencing pain during urination and blood in his urine. He had initially gone to a different clinic, which had referred him to a specialist in Tampa, a considerable distance away. The man had made it out to see the specialist, only to be told that they couldn't help him, the specialist was away and would be unavailable for several weeks. Having been unable to obtain the care he needed, the man had come to the San Juan clinic in hopes that they could help. Unfortunately, Sister Margaret did not have any urologists in her provider network, and did not know of anyone to contact. There was nothing the clinic could do for the man, and Juanita had to send him away, suggesting he try elsewhere. [Excerpt from fieldnotes.]

This story is in no way unique. In fact, it is a situation that the staff at the San Juan Mission are all too familiar with. The lack of local resources and infrastructure is perhaps one of the greatest challenges facing the community, and it is an issue that the San Juan clinic deals with on a regular basis. While the issue of poverty discussed previously is perhaps the most immediate factor affecting farmworker health and general well-being, this is in fact only one part of a larger picture of structural constraints. Thus,

in addition to the personal circumstances of poverty described previously, there is also a more general condition of poverty in terms of the local availability of services and resources.

Service provider interviewees described lack of resources as a serious obstacle in trying to meet the local community needs, and one with which they struggle immensely. Miguel, for example, commented that, “There have been some really sad situations where we wished we could do something and can’t because we don’t have the resources.” Similarly, in reflecting upon the man with the urinary tract infection, Juanita added, “It’s like Sister said today, we are resource poor. There are not enough resources for the demands and the needs of the community.” Specific unmet needs identified by participants included general health care, access to specialists, transportation, dental services, and eye care. Access to specialists, in particular, has been a significant struggle for the San Juan clinic, as evidenced in the earlier story. Although they go to great lengths to try to find the services needed by the community, sometimes they are successful, and other times they are not. Sister Margaret related the following:

“The positive things are those moments when I have been able to, when my collaborative community has stepped forward and helped someone in need. A little girl had broken her arm and a cast needed to come off, \$180 just to remove the cast. I connected with an orthopedic specialist that I knew in St. Pete. He had already left his office, said ‘let me go back.’ It was rush hour. He went [back to his office], picked up his cast saw and came all the way out here... to take this little girl’s cast off. I’ve had a couple of things happen like that. It’s really awesome. It’s the people who step forward to do the simple things like that. Another young man came in who had fallen on his wrist and I thought he might have fractured it. I sent him to a walk in clinic. He had a fracture. I was able to call Shriners

[Hospital]. He needed surgery. They operated on him on Thanksgiving Day. If they hadn't fixed it, he would have been handicapped for the rest of his life... but probably the hardest, hardest thing of all is that I've had to deal with at least 3 quadriplegics, young men who came here whole and were paralyzed from the neck down, and there's nothing that we can do for them. We basically had to tell them to go back to their own country because there was nothing we could do here."

Service providers found it very challenging to address community health issues under such circumstances.

With regards to obesity, Sister Margaret confessed, "What to do about it, I don't know. I don't know because of the lack of resources from their standpoint. I don't know how to get around that." Service providers agreed that it would be very difficult to address obesity without increasing community resources, particularly in terms of access to healthier foods.

An Unjust System: Structural Barriers to Care

Even when services are available within the community, there are additional barriers that prevent farmworkers from accessing those services. Cost, lack of insurance, and immigration status were three issues specifically emphasized by service providers. Through the course of their interviews, service providers described a system of structural inequalities that systematically excludes farmworkers from accessing care. Sadly, despite the efforts of charity organizations such as the San Juan clinic and other local ministries, Sister Margaret felt that in the past ten years, these barriers to care have remained largely unchanged.

Since farmworkers are typically not U.S. citizens, and a majority are undocumented, accessing health care and other social services can be very challenging. As Miguel noted, “Because of their legal status, they’re left out of Medicare, Medicaid, so a lot of people go without until they’re really, really sick and they end up in the hospital. Even the kids sometimes.” Since undocumented immigrants only have access to emergency Medicaid, and most lack insurance, they are frequently unable to afford health care, even when services are provided at a minimal fee. “Sometimes even the little that they charge is more than people can afford,” Sister Margaret explained. Expanding on this issue, Miguel relayed the following:

“They could have a cold and not treat it, have diabetes and not even know that they have it, and after they know they go without because they can’t afford the medication. One guy came in with a broken leg. He broke it while playing soccer. Before he went to the hospital, he went to a *curandero* [a Mexican folk healer], made it worse. When he came here, his leg was purple. He probably didn’t have any money and didn’t want to go to the doctor, and it made it worse.”

Immigration status can also be prohibitive to farmworkers’ ability to access services due to the potential legal ramifications. Interactions with the health care system risk an individual’s legal status being revealed in the process, and this can serve as a major deterrent. As Christine observed, there is a “fear of accessing services, that they will be reported and possibly deported.” This fear makes undocumented individuals hesitant to seek needed services, and can significantly delay their accessing care. Juanita lamented on this fact and the impact it has on farmworkers’ health, stating that, “They don’t come soon enough [to the clinic] with very serious illnesses.” Sister Margaret, furthermore, explicated that the problem is “Our immigration laws at this point that

penalize and marginalize those who are here to try to earn an honest day's living and basically provide us with the food on our table." Interviewees viewed this unjust system as the cause of many of the health disparities affecting farmworkers because it deters individuals from seeking services or blatantly denies access when they do seek help.

Summary

The totality of structural constraints described here is important for understanding an issue such as obesity. Within this web of poverty, lack of local resources, and limited access to services, particular health issues like obesity frequently take a back burner to more immediate and pressing needs. When people are living day-to-day and struggling just to make ends meet, it is difficult to think about long-term health outcomes, particularly when they seem outside of one's control. Not surprisingly, therefore, when asked about their greatest life concerns, relatively few (n = 4) farmworkers mentioned health. Rather, their biggest concerns were work/money (n = 10) and their children (n = 8). This does not mean that they do not value their health; the fact that they come to the clinic suggests otherwise. With so many unmet needs, however, providers must recognize that health is not always the top priority; meeting life's basic needs must come first.

Chapter 5
Discussion and Conclusion:
Understanding Farmworker Obesity

The research presented here has explored local perspectives of farmworkers on the relationships among health, food, and the body as these pertain to the issue of obesity. I have also attempted to contextualize these perspectives within the broader social, political, and economic processes that shape and constrain farmworkers' lives. While obesity and related health problems constitute a growing concern both within the United States and globally, attempts to address the rapidly rising rates of obesity have had little success. Anthropology has made significant contributions to understanding the complexity of health issues among diverse and marginalized populations, and I have tried to demonstrate here the usefulness of such an approach in examining the context of obesity among farmworkers. I propose that in order to truly understand and address the causes of obesity, it is necessary to adopt an holistic perspective that examines the interactions and inter-connectivity of cultural and structural factors. In this final chapter, therefore, I discuss the ways in which both cultural and structural processes shape obesity among farmworkers, situating the current study within the larger body of anthropological and health research, and furthermore, describe the implications that these findings have for health interventions.

Cultural and Structural Aspects of Obesity

The main purpose of this study has been to gather preliminary data on the cultural and structural processes influencing the prevalence of obesity among a local farmworker population in Central Florida. In this regard, I have gathered data on the perceptions of both farmworkers and health and service providers, and have tried to contextualize these perspectives within the broader social, political, and economic landscape. My intent here is to emphasize the ways in which multiple cultural and structural factors interact with and affect health outcomes, in this case focusing on obesity.

It is generally assumed that science and biomedicine exist outside the realm of culture, and that while patient populations are influenced by culture, health providers are not. As a result, there are vast amounts of research exploring the cultures of diverse patient populations and the implications that cultural influences have on health, but relatively little research that examines provider perceptions of their patients and the communities they serve. The limited research that has been conducted suggests that provider perceptions and treatment of patients is affected by the patient's ethnicity, and that health providers are at times influenced by stereotyping (Lyons et al 2008, Lausch et al 2003, Van Ryn 2002). The findings of the current study seem to support these previous works; health and service providers participating in this research made certain assumptions about the knowledge and culture of farmworkers that were not always accurate. Specifically, health providers believed that farmworkers were generally ignorant regarding the health implications of obesity, and that they did not perceive a relationship among health, diet, and body size.

While health providers in this study perceived that farmworkers do not understand the relationship between the body and health, farmworker interviews revealed that this was in fact not true. Health providers and farmworkers actually shared very similar ideas about healthy, unhealthy, and ideal body sizes. Furthermore, farmworkers also understood the importance of regular exercise for obtaining and maintaining a healthy body. Their responses when asked how to attain a healthy body reflected the same basic information promoted by health education programs targeted at addressing obesity: get more exercise, eat better, and eat lighter. The only significant difference that emerged between health providers and farmworkers was in perceptions of the wealthy body, and the fact that many farmworker participants declined to answer this question or stated that they did not know the answer suggests that there probably are not any widespread cultural beliefs about the relationship between wealth and body size. Overall, these findings indicate, contrary to concerns expressed by clinic staff, that cultural perceptions of the body held by farmworkers do not conflict with the biomedical model of health, and there is certainly no cultural preference for overweight or obese body sizes. Thus, the findings that have been presented here suggest that health providers were incorrect in their perceptions of farmworker beliefs and knowledge about the body. Since previous studies exploring body image and body preferences among diverse ethnic groups have generated conflicting findings regarding the prevalence of cultural differences in perceptions of the body (i.e. Wright & Whitehead 1987, Crago et al 1996, Chandler et al 1994, Simeon et al 2003, Cachelin et al 2002, Contento et al 2003, Cachelin et al 2005, Winkleby et al 19996, Rubin et al 2003, Demarest & Allen 2000), and most have focused on comparisons of black and Caucasian women, this study adds to the current body of

research on the topic by exploring a specific population that has previously not been studied, Latino farmworkers. This research adds certain key components that were not included in previous studies. First, the focus on a specifically defined population (Latino immigrant farmworkers) as opposed to the use of generic racial/ethnic categories commonly found among these studies (i.e. black, Asian, Hispanic) provides a stronger basis for drawing conclusions about these findings because the study population shares actual meaningful characteristics, as opposed to the superficial appearance of similarity based on an assigned ethnic identity that encompasses multiple, diverse countries of origin. Additionally, the current study compares farmworker perceptions to those of health providers, as opposed to previous studies which have compared ethnic women to white women. The use of health provider perspectives as a basis for comparison provides more meaningful information in terms of the implications for obesity, as it is feasible (even likely) that the perceptions of white women do not adequately reflect the biomedical perspective on health. Thus, while some previous studies have found a preference among ethnic minority groups for larger body sizes than among the white population (i.e. Simeon et al 2003, Rubin et al 2003), these findings do not in and of themselves indicate a preference or greater tolerance for obesity; instead, they may indicate that white women have a preference for underweight body sizes. Thus, a key distinction of the current study is the use of the biomedical perspective as a baseline for understanding the perceptions of farmworker participants.

This study also makes contributions to the vast body of research on acculturation and health. Statistical analyses demonstrated that there were also no differences in farmworker perceptions based on length of residence, and very few individuals spoke any

English, so there is also no indication from this data that acculturation has had an impact on perceptions of the body among this population. This is in contrast to much of the literature on acculturation (i.e. Bates et al 2008, Cachelin et al 2005, Antecol & Bedard 2006, Hubert et al 2004) and highlights the challenges in trying to measure such a complex and poorly-defined concept. Migrant health is affected by a myriad of interacting factors and forces that are embedded in the migration experience which cannot possibly be captured by a simplified conception of acculturation or assimilation. In particular, the current study points to the shortcomings of using proxies, such as length of residence, as indicators for acculturation. Such indicators cannot possibly capture the diversity of the migration experience. The assumptions, furthermore, that the United States is comprised of a single culture to which immigrants gradually assimilate, and that immigrants have no prior exposure or familiarity with aspects of American culture, are both naïve and inaccurate. The processes of globalization that characterize the modern world have brought American foods, music, clothing, and even biomedicine to vast regions and countries, just as cultural influences from other places have permeated the US. The research presented here emphasizes, therefore, that understanding the migration experience and the changes that occur as immigrants adapt to their new surroundings cannot be captured through the measurement of a few simple variables, but requires in-depth, qualitative exploration.

In addition to sharing similar perceptions of the body as health providers, furthermore, I also found that farmworkers were very much aware of the relationship between diet and health, and many reported that “eating well” is necessary for achieving a healthy body. Some participants even provided specific dietary instructions, such as

eating fruits and vegetables. Similarly, respondents described a connection between eating poorly and having an unhealthy body, with examples such as consuming too much sugar or fats. Overall, however, relatively few respondents provided detailed nutritional information, which could indicate that respondents are simply repeating general nutritional information that they have been told by health providers without a comprehensive understanding of what is meant by such statements. This is similar to the findings described by Essa (2001) in his study of Latino farm and industry workers, in which participants reported that eating a balanced diet is important for health, but were not entirely sure what was meant by a “balanced diet.” The food pile-sorting activity that was conducted with farmworker participants provides a general indication of perceptions regarding nutrition and beliefs about what it means to eat healthy, but an in-depth analysis of nutritional knowledge and comprehension cannot be ascertained from this data. The interest expressed by participants in learning more about nutrition suggests that there is a felt need for better information among this population, and that nutritional programming would be well-received.

Information alone, however, is not adequate to address issues of obesity and nutrition. As this research has shown, farmworkers are constrained by a myriad of structural factors – lack of local resources, low wages, lack of health insurance, limited employment opportunities, and significant barriers to accessing social and health services. In 1998, Sandhaus (54) noted that, “Migrant farmworkers can barely afford the produce that their grueling, underpaid labor provides.” This fact has not changed in the more than ten years since she wrote it. Indeed, the current study confirmed the findings of previous research on food insecurity among farmworkers (i.e. Quandt et al 2004, Essa

2001, Shotland 1989). Farmworkers continue to struggle, making the minimalist of wages, and barely able to put food on their tables. They work long hours, out in the hot sun, performing tasks that are physically taxing on the body. Under these circumstances, it is not reasonable to expect that they should exercise during the little leisure time they have, or consume the recommended five servings of fruit and vegetables each day. Participants in this study reported an average of only \$28 per person available for food expenditure each week. It is extremely difficult to provide adequate and nutritious meals for the household with such limited resources. For many farmworkers, such guidelines are not within their realm of possibility, and no amount of education will change this reality.

To summarize, then, this research has emphasized the intertwining influences of both cultural and structural processes in understanding the disproportionate rate of obesity found among Latino farmworkers. Through an exploratory study of a local farmworker population in Central Florida, I found that farmworker perceptions of healthy and unhealthy body sizes, as well as knowledge about the role of diet and exercise in maintaining a healthy body, did not differ significantly from those of local health providers. Cultural constructions of food categories and nutritional knowledge did, however, differ some from established US nutritional guidelines, and participants expressed interest in receiving more nutritional information and education. Thus, these findings indicate that cultural factors do play a role in shaping health beliefs and behaviors relevant to obesity, although perhaps not as strong a role as health providers perceived. Rather, the findings discussed here suggest that structural factors are much more detrimental to the health of farmworkers. Low wages, limited employment

opportunities, lack of local resources, and inaccessibility of many health and social services severely constrain the ability of Latino farmworkers to attain the same health and nutritional standards as the white majority population in the US. The argument presented here emphasizes the same assertions made by previous anthropological studies (i.e. Benson 2008, Holmes 2007, 2006, Quandt 2004), that efforts need to focus on addressing these structural inequalities in order to truly affect health outcomes for farmworkers.

Implications for interventions

Health providers often become frustrated with patients who are “noncompliant” and fail to care for their health. When it comes to immigrant populations, it is frequently assumed that they are either ignorant when it comes to issues of health, or that their cultural beliefs somehow conflict with “correct” biomedical knowledge. There is, furthermore, an underlying assumption that health is a primary concern; yet, as the findings I have presented here reveal, health is not always the most immediate concern in farmworkers’ lives. When asked about the greatest concerns in their lives, relatively few ($n = 4$) farmworkers in this study mentioned health. Individuals are often juggling multiple, competing concerns, balancing children, work, and limited funds and resources. In these circumstances, health is just one issue among many, and frequently not the most pressing one. When people are struggling to meet basic needs, health often takes a backseat. It is crucial that health providers are aware of these harsh realities, and acknowledge that these competing needs do not exist separately from health, but rather, they intersect, influence, and interact with health conditions.

The implication of these findings is that educational interventions are not adequate on their own. Anthropologists have long been critical of nutritional

interventions that focus on education while ignoring the significant impact of structural issues (Pelto 2000). Poor populations are often bombarded with educational interventions, based on their presumed ignorance, but these do nothing to address the poverty, discrimination, and other factors that constrain their inability to achieve a healthy lifestyle. Thus, in order to address obesity among this particular population, health interventions must tackle the structural constraints affecting farmworkers. This means increasing access to nutritious foods, such as fresh produce, as well as advocating at the policy level for the rights of farmworkers, and for immigrants in general. Healthcare workers are in the perfect position to advocate on behalf of marginalized populations, as they face the prevalence of health disparities that exist on a daily basis and the policies that contribute to these disparities. Health providers cannot remain neutral if they truly want to address these issues; they need to advocate for labor policies that do not exploit immigrant workers, and for social policies that recognize the human rights of immigrants, regardless of status, and improve access to necessary health and social services, including Medicaid, Temporary Assistance for Needy Families (TANF), and food programs such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and food stamps. Only by correcting the structural inequalities embedded in the U.S. social and political system will any real, long-lasting impact be made on the health of farmworkers.

Culture, furthermore, can and should be viewed as a supportive factor, not a barrier to health. The lack of clarity among providers in defining culture makes it difficult to conceptualize precisely what the relation is to health, making “culture” an easy scapegoat to blame for any disparity that is not clearly understood. While the cultures of

diverse ethnic groups do not always reflect the values and beliefs upheld by the biomedical system, this does not mean that they are not compatible with biomedicine, nor that they are invalid knowledge systems. Knowledge is culturally-constructed, and that includes conceptions of health and well-being. Healthcare workers need to provide services and interventions in a manner that is culturally-relevant and ascribes value to the beliefs and knowledge of the population they serve. This includes, for example, acknowledging and validating traditional food patterns, diets, and cooking methods. Additionally, providers also need to acknowledge the heterogeneity and diversity that exists among farmworkers. Culture cannot be generalized and applied uniformly; even individuals identifying as the same ethnicity vary in their knowledge, education, values, beliefs, and experiences. Understanding and being sensitive towards cultural diversity is important, but people also need to be treated and respected as unique individuals. Thus, health interventions should encourage people to develop personal values and goals, and develop plans specific to their individual desires and needs.

Recommendations

Applied anthropology has much to offer in understanding and addressing health disparities. In examining issues related to obesity among farmworkers, this research has highlighted both cultural and structural processes that shape farmworker health. Based on the findings that have been described above, some key recommendations can be made for developing efforts to address obesity among this population.

Participants indicated that they would be receptive towards educational programming on nutrition, and that specialized courses geared towards the needs of different groups (for example, children, pregnant women, diabetics, etc.) may be

particularly beneficial. However, educational interventions should be constructed with respect to cultural values and food systems, using foods and food categories that are both familiar and culturally-relevant to the population, while also recognizing the diversity that exists among individuals. This might entail a strong focus on traditional foods, while also addressing the need for information about “American” food items to which farmworkers are increasingly exposed. Interactive programming that combines nutritional education with cooking instruction, furthermore, could also help to increase the appeal to community members, and could serve as a means to introduce new, nutritious, and locally-available foods that may be less familiar to this population.

Addressing obesity among this particular population, however, requires more than culturally-sensitive education. Health interventions must tackle the structural constraints affecting farmworkers. At the most basic level, this means increasing access to nutritious foods, such as fresh produce, either by developing supplemental food programming, or by empowering community members to produce their own food (i.e. through a community gardening or farming project). Additionally, this also includes advocating at the policy level for the rights of farmworkers, and for immigrants in general. Health providers must use their knowledge and expertise regarding the structural barriers to health to advocate for policy changes that create greater, more equal access to care.

Contributions to Anthropology and Public Health

The health fields have tended to emphasize notions of personal responsibility when it comes to understanding health behaviors and outcomes. Thus, a significant amount of theorizing within the realm of public health has focused on the beliefs, knowledge, and motivations of individuals (i.e. Hochbaum 1958, Rosenstock 1974,

Fishbein 1967, Fishbein & Ajzen 1975, DiClemente & Prochaska 1982, Prochaska & DiClemente 1983). Criticism from anthropologists has led to the incorporation of culture within the public health framework, but the emphasis continues to be placed largely on the individual, with culture treated primarily as a personal attribute and often conflated with notions of race and ethnicity. Anthropologists continue to express concern over the failure of much health research to understand the social determinants of health and illnesses. The research presented here builds upon both public health and anthropological conceptions of understanding health, emphasizing the importance of continued interdisciplinary communication and collaboration.

The current study contributes to public health in two key ways. First, it produces a richer understanding of the causes of obesity and provides insight into approaches for addressing the issue among a particular population. Part of the emphasis here is that approaches for addressing health issues must be context-specific; generic health interventions cannot simply be produced and inserted into communities at random because the effectiveness and appropriateness of the intervention depends upon the particular dynamics of the intended community. Second, this study has captured and attempted to correct some of the misperceptions common in the health fields regarding culture and the influence of cultural processes in contributing to poor health outcomes. My research has highlighted the fact that health professionals are often biased by preconceived notions regarding the cultural beliefs of patients and the role that these beliefs play in shaping health behaviors. I have, therefore, tried to put the role of cultural processes into perspective by contextualizing culture within the framework of the broader social determinants of health, including economic and political processes that constrain

the lives and choices of farmworkers. By demonstrating that these structural constraints have an important impact on health, I have attempted to correct the notion commonly found within public health that cultural competency should be the primary focus for improving services targeted at ethnic minority populations. I emphasize here that cultural sensitivity is important and should always be encouraged, but also that culture is both diverse and dynamic, and is only one aspect within a myriad of factors that shape the lives and health of populations. In short, health providers and programmers need to be aware of the full political, economic, social, and cultural context of the communities they serve.

In addition to building upon the public health framework, key contributions to anthropology are also made through this research. First and foremost, I have emphasized the importance of the anthropological approach to understanding complex health issues such as obesity. As discussed above, anthropology has much to contribute to the field of public health, particularly in the realm of understanding the prevalence of ethnic health disparities that plague our society. Additionally, this research has demonstrated the applicability of the Critical Medical Anthropology (CMA) framework for understanding chronic health conditions, and more specifically has used this approach to examine a topic that has been less extensively studied among anthropologists than other, related chronic illnesses. There has been a substantial amount of research exploring diabetes among various populations (i.e. Scheder 1988, Smith-Morris 2004, Chaufan 2008), for example, but relatively little attention paid to obesity. This may in part be due to the contention as to whether or not obesity represents a legitimate disease, or is simply a “culture-bound syndrome” within the biomedical system (i.e. Ritenbaugh 1982). The

current study makes no claim as to whether or not obesity constitutes a real disease, maintaining instead the belief that all conceptions of health and illness are culturally-constructed, and that anthropology continues to play an important role in better understanding these conceptions of health across diverse cultures and the ways in which culture intersects with larger social contexts.

This study builds upon the vast amounts of previous research among anthropologists on topics of health and health disparities, and furthermore argues for a greater push towards applied research. While anthropologists are often critical of the public health and medical fields, the vast amount of anthropological research continues to remain isolated within the academic sphere. The research I have described within this manuscript was developed at the expressed interest of a local health organization, and the primary intent has therefore been to collect data relevant to this organization's needs. Through this study, I have been able to produce a set of recommendations to help this organization develop a health intervention targeted at obesity among the farmworker community it serves. This research demonstrates, therefore, the ways in which anthropological research can be applied to community and health settings, thereby building upon the current framework of applied anthropology.

Limitations

This research is not without its limitations, the most notable of which is the small sample size. Ideally, I would have liked to have obtained a much larger sample size for this project, particularly for the benefit of statistical analyses, but unfortunately there are many constraints involved in conducting research with a population such as this one. Accessing participants for this study was extremely challenging. The main agricultural

season in this area is roughly from December to March, leaving only about four months to conduct the bulk of data collection before the migrant population moves on to their next location. The San Juan clinic where I conducted my data collection, furthermore, only operates one day per week, putting further limitations on when I could access participants. Under these constraints, it was extremely challenging to obtain sufficient numbers of participants, and I had to acknowledge early on in my research that I would not be able to achieve a very large sample size. I have addressed this issue, however, by using analyses that are appropriate for smaller sample sizes. The use of non-parametric statistical tests is standard practice with sample sizes below thirty, and consensus analyses can yield accurate results with sample sizes as small as twelve. The multidimensional scaling analysis that I conducted with the food pile-sort data ideally should be done with a sample of at least twenty, and therefore I acknowledge the limitations of this data, but the analysis was primarily conducted to provide a general sense of how items were sorted, and not to claim statistical significance of this finding. Overall, this research represents a preliminary study for exploring perceptions of food and the body among a population that has not been well-studied with respect to these issues. Future studies using these instruments, therefore, should seek to obtain larger sample sizes in order to verify and strengthen the findings reported here.

Furthermore, it should be noted that the findings from this study cannot speak directly to perceptions of obesity among farmworkers. Although some interviewees did mention obesity in discussing larger body sizes, participants were never asked specifically about obesity. Therefore, no specific conclusions about farmworker knowledge of obesity, beliefs and perceptions, or acceptance of obesity can be drawn

from this data. Rather, this study sought to understand general perceptions about food and the body, and their relation to health, in order to build a general framework for understanding the influence of culture in these issues.

Future Research

In consideration of the limitations discussed above, I would suggest that future research adopt a more qualitative approach to specifically explore cultural perceptions of obesity. Qualitative, semi-structured interviews with a larger sample of farmworkers could explore general knowledge about obesity, health implications, beliefs about the causes, treatment, and prevention, and other issues such as cultural acceptance of obesity and attitudes towards obese people. The use of more qualitative interviewing would create a richer context for understanding the ways in which people think about and understand obesity as both a health and social issue, which could then be used to inform the ways in which obesity is discussed by clinic personnel.

Additionally, future research might build upon these findings regarding conceptions of food by exploring aspects of diet and food patterns among farmworkers in more depth. Food intake data could be collected through validated 24-hour food recall instruments, allowing for the assessment of the nutritional content and quality of farmworkers' diets. This would provide a clearer picture of actual food consumption patterns, and might furthermore be supplemented with participant observation of food preparation inside the household in order to gather more detailed information about how meals are prepared and ingredients that may otherwise be overlooked by participants when reporting food consumption. Finally, qualitative interviews could also explore aspects of food decision-making and the effects that migration has on food patterns from

the perspective of farmworkers, including how diets have changed since migrating to the United States and reasons behind these changes.

Finally, building on the findings discussed in this paper, I would suggest that future research and interventions take a more participatory approach that recognizes farmworkers as agents in their own lives and empowers them to make changes and address problems that they deem important. Traditionally, public health and other health fields have viewed communities as consumers of health care and information, rather than active agents engaged in creating their own health. The implications of such an approach are that materials and programs are often created that do not meet the needs or desires of the communities they are intended to serve. This is particularly true for marginalized groups, whose voices too often are not heard, are ignored, or are even silenced by dominant power structures and institutions. The persistence of health disparities in our society, however, are evidence that the traditional “top-down” approach of public health has not been particularly successful. Increasingly, calls have been made for both research and interventions that incorporate local community perspectives and address community-identified needs, with mounting evidence to demonstrate that engaging community stakeholders increases the likelihood that research findings will be utilized (Wallerstein & Duran 2006, Israel et al 2005, Fals-Borda 2001, Minkler 2000, Cornwall & Jewkes 1995, Small 1995). Public health entities interested in addressing the health needs of farmworkers should engage these communities as partners seeking a common goal, and rather than assuming the community is ignorant about health issues, acknowledge that they have valid knowledge and ideas to contribute towards generating solutions.

Summary and Conclusions

The research presented through this manuscript has described cultural and structural aspects of obesity among a local farmworker population in Central Florida. Specifically, it addresses two primary objectives: 1) to explore cultural perceptions of food and the body among Latino farmworkers in Central Florida, and 2) to explore perceptions of the critical issues affecting this population, including both cultural and structural processes, among local health and service providers. The theoretical framework and approach embraced through this study emphasize the importance and inter-connection of local and global processes, underscoring the interaction of social, cultural, political, and economic factors that shape health and well-being. The current study has built upon the existing literature on cultural processes related to obesity, including studies of acculturation and health, cultural perceptions of the body and body image, and cultural constructions of food and nutrition. Additionally, it has explored the influence of structural factors in contributing to obesity and overall poor health among farmworkers that have been emphasized by many anthropological and nutritional studies. The overall conclusion drawn from the present study has been that both cultural and structural factors influence obesity, but structural constraints appear to be much more important in producing the disparity that exists among Latino farmworkers. Based upon these findings, I have made a set of recommendations for health interventions seeking to address this issue. Through this study, I have demonstrated the importance of utilizing a holistic approach for understanding complex health issues, particularly the poor health outcomes often found among marginalized populations, that includes analysis of both cultural and structural processes.

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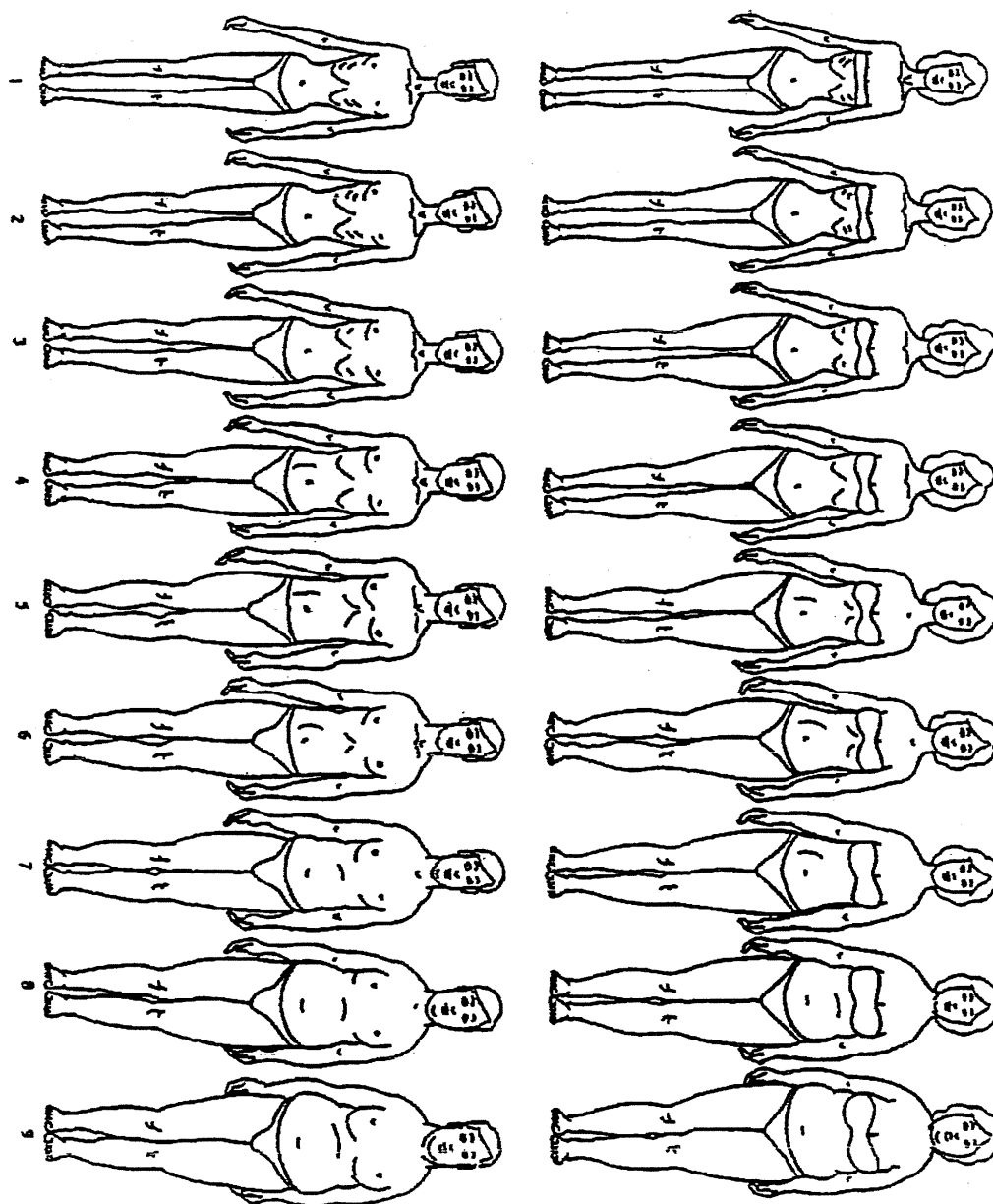
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Appendices

Appendix A: Body Silhouette Rating Scale

Figure A1: Body Silhouette Rating Scale



Appendix B: Women's Interview Questionnaire

Background Information

1. What is your age?
Cuantos anos tiene?
2. What is your country of origin?
Cual es su pais de origen?
3. How many years have you lived in the United States?
Cuantos anos ha vivido en los Estados Unidos?
4. What languages do you speak?
Cuales lenguas habla?
5. Are you married?
Es casada?
6. What is your occupation/job? What is your income/wage?
Cual es su trabajo? Cuanto dinero gana a su trabajo?
7. In the past, have you or a member of your family worked as a farm laborer?
En el pasado, ha trabajado usted o un miembro de su familia en la agricultura?
8. How many people are in your household?
Cuantas personas viven en su casa?
9. How many working adults are in your household?
Cuantos adultos que trabajan viven en su casa?
10. How many children are there in your household?
Cuantos hijos viven en su casa?
11. Who buys and prepares the food in your household?
Quien compra y prepara la comida en su casa?
12. How much household income do you have available for food expenditures in a typical week?
Cuanto dinero tiene usted a comprar la comida para su casa en una semana tipica?
13. What are the biggest concerns in your life?
Cuales son las preocupaciones mayor en su vida?

14. If the clinic were to offer a free class, (a) about health? (b) about food?
Si la clinica ofreceria una clase gratis, que quería saber (a) sobre salud? (b) sobre comida?

Pile-sorting Activity

Here I have some pictures of different foods.
Aqui tengo algunas picturas de comidas diferentes.

1. Can you organize these foods into categories of your choice?
Puede organizar las comidas en categorias de su seleccion?
2. Now can you organize the foods into healthy and unhealthy foods?
Ahora, puede organizar las comidas en categorias de comidas que son buenas para la salud, y comidas que son malas para la salud?

Body Silhouette Questions

Questions About Female Silhouettes

1. Which person is closest to your current body?
Cual persona es la mas similar a su cuerpo actual?
2. Which person do you think is the healthiest?
Cual persona piensa usted tiene la salud mejor?
- 2b. How does a person get a body like this?
Como obtiene un cuerpo como esto?
3. Which person do you think is the wealthiest?
Cual persona piensa usted tiene lo mas dinero?
4. Which person do you think is the happiest?
Cual persona piensa usted es la mas contenta?
5. Which person(s) do you think have poor health?
Cual(es) persona(s) piensa usted tiene(n) salud mala?
- 5b. What causes a person to become like this?
Que causa una persona hacerse como esto?

6. What would you call a person who looks like:
- (a) Person #1
 - (b) Person #3
 - (c) Person #5
 - (d) Person #7
 - (e) Person #9

Como se describe una persona que se parece a:

- (a) Persona numero uno
- (b) Persona numero tres
- (c) Persona numero cinco
- (d) Persona numero siete
- (e) Persona numero nueve

7. Which person would you prefer to look like?
Cual persona preferia usted parecerse?
- 7b. What do you need to do to look like that?
Que necesita hacer a parecerse eso?
8. Which person do you think men prefer?
Cual persona piensa usted que los hombres prefieran?

Questions About Male Silhouettes

1. Which man do you think is the most attractive?
Cual hombre piensa usted es lo mas guapo?
2. Which man do you think is the healthiest?
Cual hombre piensa usted tiene la salud mejor?
3. Which man do you think is the wealthiest?
Cual hombre piensa usted tiene lo mas dinero?
4. Which man do you think has the worst health?
Cual hombre piensa usted tiene la salud peor?
5. Which man would you prefer as your husband?
Cual hombre preferia usted como su esposo?

Questions About Children

1. Which person do you want your daughters to look like when they are older?
Cual persona quiere que sus hijas se parezcan cuando son mayores?
2. Which person do you want your sons to look like when they are older?
Cual persona quiere que sus hijos se parezcan cuando son mayores?

Appendix C: Men's Interview Questionnaire

Background Information

1. What is your age?
Cuantos anos tiene?
2. What is your country of origin?
Cual es su pais de origen?
3. How many years have you lived in the United States?
Cuantos anos ha vivido en los Estados Unidos?
4. What languages do you speak?
Cuales lenguas habla?
5. Are you married?
Esta casada?
6. What is your occupation/job? What is your income/wage?
Cual es su trabajo? Cuanto dinero gana a su trabajo?
7. In the past, have you or a member of your family worked as a farm laborer?
En el pasado, ha trabajado usted o un miembro de su familia en la agricultura?

Body Silhouette Questions

Questions About Male Silhouettes

1. Which person is closest to your current body?
Cual persona es lo mas similar a su cuerpo actual?
2. Which person do you think is the healthiest?
Cual persona piensa usted tiene la salud mejor?
3. Which person do you think is the wealthiest?
Cual persona piensa usted tiene lo mas dinero?
4. Which person do you think has the worst health?
Cual persona piensa usted tiene la salud peor?
5. Which person would you prefer to look like?
Cual persona preferia usted a perecerse?

Questions About Female Silhouettes

1. Which woman do you think is the most attractive?
Cual mujer piensa usted es la mas bonita?
2. Which woman would you prefer as you your wife?
Cual mujer preferia usted como su esposa?