

DIABETES ILLNESS NARRATIVES AMONG MEXICAN IMMIGRANTS IN THE U.S.-
MEXICO BORDER REGION

by

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ABSTRACT

This project investigates experiences of type 2 diabetes among Mexican immigrants living in Tucson, with a specific focus on conceptualizations of risk, heritability, individual responsibility, and experiences of emotion. It combines questions about the negative impacts of structural factors on the health of immigrants in the U.S. with questions about conceptualizations of risk. Participants viewed individual responsibility as an important ethical value in terms of managing risk. Because of the hereditary nature of diabetes, discourse on responsibility could be interpreted as an at-risk illness narrative. An emphasis on individual responsibility in diabetes management led to negative emotions both for the person with diabetes and their family members, as well as feelings of blame on the part of family members. Negative emotions cause conflict within families, and in the instance of depression or feelings of resignation, impede self-care.

INTRODUCTION

This project investigates experiences of type 2 diabetes among Mexican immigrants living in Tucson, with a specific focus on conceptualizations of risk, heritability, individual responsibility, and experiences of emotion. It combines questions about the negative impacts of structural factors on the health of immigrants in the U.S. with questions about conceptualizations of risk. I focus on experiences of diabetes among Mexican immigrants because it encompasses existing health disparities, the embodiment of inequality, the negative impacts of immigration politics, the perceived individual responsibility for health, the impacts of chronic stress on health, and how people's conceptualizations of disease risk impact their own sense of health as well as their relationships with loved ones.

Initially, the focus of my investigation was on the links between immigrants' experiences of diabetes and their experiences of being marginalized in the highly racialized and militarized U.S.-Mexico border region, based on previous research that demonstrated that Mexican immigrants associated experiences of structural inequality with the onset of diabetes or the worsening of symptoms (Mendenhall and Jacobs 2012). However, this link was not as strong among the people that I interviewed. While they did feel stressed about immigration issues, they did not associate these experiences with diabetes. More salient themes in the participant narratives were risk, responsibility, and negative emotions surrounding diabetes. Though immigration issues are not the main focus of this thesis, they are still important to keep in mind as structural factors impacting health outcomes for Mexican immigrants living in the U.S.

BACKGROUND

Illness Narratives and Diabetes Management

Medical anthropologists often distinguish between disease and illness, with disease being “the practitioner’s construction of patient complaints in the technical terminology of a particular healing system” and illness being the “culturally patterned social and personal experience of sickness” (Kleinman and Seeman 2000, 231). Experiences of sickness are brought into being through social interaction rather than existing solely within the individual. They exist within a social space. “Thus, illness experience becomes a site for the infolding [*sic*] of the social world onto the body – but in a way that interacts complexly with, rather than effacing, the contingency of individual lives” (ibid., 235). Stories about illness reference a person’s identity and connect their experiences with illness to their life story. Illness narratives are closely tied to people’s sense of self and are an attempt to reconfigure one’s identity in light of experiencing an illness (Mendenhall et al. 2010). Illness narratives are performative in the sense that they create the self

that an individual views as their inner self (Frank 2000). Hunt and colleagues (1998) found that people's explanations of the cause of their diabetes are directly linked to their personal histories. I found this to be true for participants in this study as well. Rather than relying on a completely clinical narrative, participants cite specific moments or experiences, whether acute or chronic, that led to the development of their diabetes, or the diabetes of a family member. Perceptions of people's morality are intimately tied to illness (Kleinman and Seeman 2000), especially for chronic diseases that are associated with lifestyle factors, such as diabetes. Reflections on how one developed diabetes, or how a family member developed diabetes, are deeply connected to narratives of responsibility and moral rightness.

Cultural context influences the way people experience and talk about illness (Frank 2000), but one must be careful not to force people's experiences into existing cultural narratives: "In some cases, a focus on culture may even obscure more than it reveals, allowing the heavy hand of the interpreter to rob lived experience of its forcefulness and contingency by forcing it to conform with preconceived cultural categories" (Kleinman and Seeman 2000, 233). In clinical medicine, public health, and sometimes anthropology literature, Hispanic patients are frequently treated as a discrete cultural group that reliably demonstrates a fixed set of characteristics. They tend to be portrayed as fatalistic (Hunt et al. 1998; Hunt and de Voogd 2005; Hunt 2005; Gany et al. 2006; Espinosa de los Monteros and Gallo 2011), or as deviating from biomedical explanations of disease etiology for diabetes (Mann et al. 2009). In this thesis, I attempt to be mindful of the cultural context of illness experiences, but not focus exclusively on culture in people's narratives in order to avoid the trap of oversimplifying cultural categories. In their book chapter entitled "Personal Experiences of Illness," Arthur Kleinman and Don Seeman called for

more medical anthropology research on the “experiential dimension” of illness (2000, 233). I understand this project as responding to this call.

Individuals often have complex and varied causal explanations for diabetes, rather than having one simple explanation (Mercado-Martinez and Ramos-Herrera 2002). Health researchers, especially those interested in health disparities and lay explanatory models, tend to focus on ethnicity as a causal factor for people’s understandings of a disease. This focus on certain illness narratives shared by people of a certain ethnicity threatens to homogenize representations of people’s understandings of a disease. In contrast, Schoenberg and colleagues (2005) argue that socioeconomic status is more important than ethnicity for variation in explanatory models of diabetes. In addition, familiarity with biomedical narratives about diabetes may help explain this variation (Weller et al. 1999). Across ethnic groups, patients with diabetes feel that structural inequalities contribute to chronic stress and poor health (Mendenhall et al. 2010; Schoenberg et al. 2005). Living in poverty increases the amount of stress an individual experiences. Type 2 diabetes rates are higher among people living in poverty, and in the research conducted by Mendenhall and colleagues (2010) among Mexican Americans living in poverty in Chicago, diabetes was used as an idiom of distress (Nichter 2010) for psychological suffering. Thus “diabetes figures both as an expression and a product of social suffering in these narratives” (Mendenhall et al. 2010, 220). In other words, diabetes is both used to express distress stemming from living in poverty and associated with living in an environment that causes chronic stress. Stress also has secondary effects on diabetes. Stress interferes with diabetes self-care practices: “stress serves as both a precursor to and a consequence of diabetes complications” (Schoenberg et al. 2005, 178). Worrying about existing complications or complications that might arise in the future also negatively impacts an individual’s health.

Risk

Factors that increase an individual's risk of developing diabetes, such as experiencing chronic stress from living in poverty, are an important aspect of diabetes illness narratives. This is unsurprising because of the prevalence of risk discourse in biomedicine about chronic disease (Robertson 2000; Bell and Ristovski-Slijepcevic 2015; Seligman et al. 2014). However, risk is a common concept outside of biomedicine as well. Risk is a modern preoccupation (Tsing 2015; Beck 1989). It is a result of the unfulfilled promises (progress and prosperity for all) of modernity and industrialization (Tsing 2015). Focusing on risk for developing a disease, such as diabetes, in biomedicine or epidemiology is another manifestation of the preoccupation with risk and uncertainty that characterizes this moment in global history.

Predicting and avoiding risk are central to the rationalist perspective that informs modernity. They are also important for reinforcing the prestige of biomedicine and epidemiology as scientific fields (Lupton 1995). Using the word *risk* instead of *danger* connotes neutrality and objectivity, cloaking long-standing cultural notions of purity and impurity in supposedly unbiased language (Douglas 1992). An increase of risk discourse in biomedicine is attributed to an increase in surveillance medicine, which is also associated with the risk factor (Gillespie 2012). Because of these trends in biomedicine, a new pre-illness category (for example, pre-diabetes) has come into existence, which can negatively impact people who are placed in this category by making them feel more vulnerable to illness (Homberg et al. 2015). Another negative consequence of focusing on the risk factor in health research “has resulted in the erasure of the socioeconomic, historical, and political contexts of populations affected by disease. Life and ecological conditions have been replaced with a reductionistic [*sic*] emphasis on individual

and molecular causes of disease” (Montoya 2011, 87). In other words, the impacts of structural factors on health are elided by a focus on the individual.

Risk has come to define most aspects of people’s lives (Lupton 1995). Risk discourse is directed at the regulation of the body, and is part of Foucauldian technologies of the self (Lupton 2013). As such, individuals, who are thought of as rational beings who understand the concept of risk, are seen as responsible for their own health. Drawing upon Giddens’ work, Lupton argues that the self is a “reflexive project in late modernity... there is far more emphasis on the malleability of the self and the responsibility that one takes for one’s life trajectory” (2013, 101). This has implications for how people interpret responsibility for health. Expert knowledge has replaced tradition as the voice of authority, and lifestyle is something to be negotiated. “The reflexive project of self-identity requires ‘considerations of risks as filtered through contact with expert knowledge’” (ibid., 101 citing Giddens 1991). Encounters with health experts, whether they are doctors or public health educators, shape how people think about personal risk. In this thesis, I will focus on subjective risk, or how laypersons interpret biomedical/epidemiological risk. People interpret subjective risk as increasing their vulnerability towards developing certain diseases, such as diabetes (Robertson 2000).

Most commonly risk is portrayed as a consequence of choices made by individuals rather than stemming from structural, biological, or environmental factors (Lupton 1995), especially in relation to diseases, such as type 2 diabetes, that are associated with lifestyle factors (Bell and Ristovski-Slijepcevic 2015; Robertson 2000; Seligman et al. 2014). As mentioned previously, this takes the individual body completely out of the lived context.

Neoliberal governance, the economic, political, and social system that has come to characterize much of the world, depends upon the self-regulating subject “in pursuit of their own

best interests and freedom, who are interested in self-improvement, seeking happiness and healthiness” (Lupton 2013, 119). For example, the self-regulating subject will understand the risk factors for developing diabetes, and will take the necessary precautions of exercising regularly and eating healthily in order to be a happy and healthy person. However, the layperson’s understanding of statistical or epidemiological risk is not quite the same as that of the risk expert. Fear of embodied suffering previously experienced or witnessed motivates lay people’s responses to risk (Wilkinson 2006). This can take the form of seeing a family member experience complications and/or death from diabetes, which then influences how you think of your personal risk of developing diabetes, and potentially how you change your habits in order to mitigate that risk. Also, because of the unpredictable nature of diabetes, people deploy certain strategies of behavior change to try to mitigate the potential risks.

Migration in the U.S.-Mexico Border Region

The current form of U.S. immigration policy began in the early 1990s with a program called Prevention Through Deterrence. It started in El Paso, Texas in 1993, when the Border Patrol intentionally made it more difficult for migrants to cross in heavily populated urban areas. This approach has funneled migrants through the Sonoran Desert in Arizona, a dangerously harsh and isolating environment intended to deter migrants as well as make it less likely for them to survive the journey. This is the Border Patrol’s “not-so-secret” strategy to curtail undocumented migration (de León 2015, 8).

Structural adjustment policies and neoliberal policies in the 1980s and 1990s (specifically NAFTA) made it less viable to earn a living in Mexico. These structural changes led to increased internal migration from rural areas to cities, and into the United States (Cruz-Torres 2004; Sheridan 1996). Also, the reform of Article 27 in the Mexican Constitution led to privatization of

land ownership, which weakened the *ejido* system (Cruz-Torres 2004), a government subsidized land ownership system (Castles and Miller 2009). NAFTA, implemented in 1994, is the most prominent example of the impacts that internationally supported neoliberal policy had on Mexico. U.S. government subsidies on corn sold in Mexico meant that Mexican farmers could not compete.

The United States promised economic prosperity for its southern neighbor if it would only open up its ports of entry and take shipment of cheap goodies. Soon after Mexico signed on the dotted line, it found itself drowning in a *pinche montón* of subsidized *gringo* corn that crashed their economy and put millions of peasant farmers out of work (de León 2015, 6).

A sizeable portion (one-third) of Mexico's population could no longer afford to farm or grow their own food, leading to mass migration out of rural areas to urban areas in Mexico as well as the U.S. This increase in migration during the 1980s and 1990s led to stricter immigration laws in the U.S. (Castles and Miller 2009).

Undocumented migrants, once they live in the U.S., continue to experience uncertainty and precarity in their lives. In particular, undocumented migrants face long-term separation from family because of the high financial cost and extreme danger of crossing the U.S.-Mexico border. This prolonged isolation leads to heightened levels of stress, depression, and loneliness among migrants (Boehm 2012). Undocumented migrants live under the constant threat of deportation, experience the negative effects of the war of attrition against migrants, experience chronic food insecurity (Carney 2015a), and lack adequate access to health care (Parmet 2013). U.S. immigration policy and economic policy have created the perfect storm of danger and precarity: it is not viable to remain in Mexico because of economic insecurity, it is dangerous and expensive to cross the border, and the threat of deportation is constantly in the background

after successfully crossing. As a result, migrants who live in the U.S. stay for longer periods of time, separated from their support networks in their home country.

Immigration and Health (Care)

As a sub-population, immigrants experience a lack of adequate access to health care in the U.S. (Parmet 2013). Immigrants have lower rates of health insurance, use less health care, and receive a lower quality of care than U.S-born populations. These factors vary according to socioeconomic status, immigration status, gender, ethnicity, class, English proficiency, residential location, and the marginalization of certain groups (Derose et al. 2007; Sargent and Larchanché 2011). Migration in itself produces certain health risks. Approximately 6.4 million Mexican immigrants in the U.S. (53% of Mexican immigrants in the U.S.) do not have health insurance, which is the highest rate among any immigrant group (Ramírez et al. 2013). Most legal immigrants are ineligible for services such as Medicaid for their first five years of residence, and all undocumented immigrants are ineligible (Fix and Passel 2002). Thus, Mexican immigrants often do not have a place to receive regular health care (Ramírez et al. 2013).

Additionally, immigrant health is correlated with level of social integration and length of time in the U.S. For immigrants who are not socially integrated, this marginalization leads to increased rates of illness, which exacerbate the risk of additional illness and lack of access to health care (Ramírez et al. 2013). Thus, having an undocumented immigration status increases vulnerability to poor health outcomes even more (Carney 2015b; Holmes 2012; Horton 2016; Horton and Barker 2009; Willen 2012).

Health outcomes for immigrants are frequently explained using the concept of acculturation, which obscures how structural factors impact immigrant health. Acculturation ignores “how factors such as immigration policies, labor practices, neighborhood characteristics,

and racialization processes intersect and affect the economic and social integration of immigrants” (Viruell-Fuentes, Miranda, and Abdulrahim 2012, 2100). Crocker (2015) found that first-generation Mexican immigrants living in Tucson, Arizona experience extreme psychosocial stress and multiple chronic negative emotions as a result of structural migration-related experiences, including dangerous border crossings, detention and deportation, immigration status, separation from family, and extreme poverty. According to Willen (2012) “illegalization,” meaning the dehumanization and criminalization of undocumented migrants, “however socially constructed and ideologically loaded, has health consequences” (805). Discrimination and structural violence, especially at the federal and state policy levels, take their toll on immigrant health (Viruell-Fuentes et al. 2012). Viruell-Fuentes and colleagues (2012) call for more research on how structural racism impacts immigrant health, especially how the status of “illegality” shapes health outcomes. I see this project as responding to that call. Looking at federal and state immigration policy as directly impacting immigrant health is essential to this project.

Type 2 diabetes is often associated with experiences of social stress, particularly among Mexicans and Mexican Americans, although this association is made cross-culturally (Schoenberg et al. 2005). Mendenhall and colleagues (2010) argue that this focus is motivated by the more obvious linkage of diabetes with *susto*, *nervios*, and *coraje* as explanations for diabetes onset and/or worsening of symptoms: “What seems to be most unique about Mexican and Mexican American explanatory models for diabetes is the powerful culturally elaborated idioms through which emotional experiences are frequently expressed” (224). Because of this close association of social stress and diabetes, especially among Mexicans and Mexican Americans, investigating Mexican immigrants’ experiences with diabetes is a way to simultaneously

investigate how experiences of political, economic, and social marginalization negatively impact their lives in the U.S.

Embodiment of Inequality

While race as a meaningful biological marker has been rejected by the social scientific community, some social science scholars argue that racism as a sociocultural phenomenon has real consequences for people's health (Gravlee 2009; Gravlee, Dressler, and Bernard 2005; Harrison 1994; Hertzman and Boyce 2010; Montoya 2011). In other words, "race becomes biology" (Gravlee 2009, 47) because "race is a cultural construct that profoundly shapes life chances" (ibid., 48). The cumulative effects of a lifetime of experiencing racism at the individual and institutional level takes its toll (Harrison 1994; Hertzman and Boyce 2010).

Montoya (2011) argues that structural racism, including U.S. immigration policies and economic trade policies, has more influence over diabetes incidence among Mexicanas/os in this region than genetics (here understood as a gloss for biological race). People of color living in the border region have experienced economic stagnation, inconsistent employment, and political exclusion. When considering this sociopolitical context of the border region, diabetes incidence "is strongly associated with the national political and economic transformations on the border" (ibid., 88).

The concept of embodiment is useful when thinking about how race becomes biology. Embodiment explains "humans' dual status as biological organisms and social beings" (Gravlee 2009, 51 citing Krieger 2005). Embodiment is how lived experiences imprint themselves upon the body (and health) of an individual, starting *in utero* and ending with death. Negative health effects from structural inequalities are felt across generations (Gravlee 2009; Hertzman and Boyce 2010). A compelling piece of evidence for the embodiment of structural inequalities is

how low birthweight, associated with maternal stress, is in turn associated with higher risks for developing heart disease, stroke, hypertension, and diabetes later in life (Barker 2004).

The embodiment of inequality can also stem from economic inequality. Everson and colleagues (2002) review the epidemiologic evidence for the role that socioeconomic status (i.e. the chronic mental and physical stresses associated with living in poverty) plays in chronic disease, and conclude that “the effects of economic disadvantage are cumulative, with the greatest risk of poor mental and physical health seen among those who experienced sustained hardship over time” (891). In this review, they also demonstrate that people living in a low socioeconomic status are at increased risk for depression, obesity, and/or diabetes.

Rates of type 2 diabetes are increasing all over the world. As of 2015, 415 million adults had diagnosed type 2 diabetes, and it is estimated that the total will reach 642 million by 2040 (International Diabetes Federation 2015). In the U.S., 9% of adults have type 2 diabetes (National Center for Chronic Disease Prevention and Health Promotion 2014). In Mexico, it is estimated that 14% of the population has diabetes (Sosa-Rubí et al. 2009 citing Villalpando, personal communication). Groups with the highest rates of diabetes and the most severe complications live in poverty and often belong to marginalized ethnic or racial groups (Everson et al. 2002). Among Hispanic¹ women living in the U.S., the lifetime risk for developing diabetes is as high as 52.5%, compared to 31.2% for Euro-American women. For Hispanic men in the U.S., the risk, estimated at 45.6%, is lower than for Hispanic women, but higher than for Euro-American men (26.7%) (Narayan et al. 2003). The intersection of race and gender disparities in health is an explanation for Hispanic women having the highest lifetime risk for developing diabetes (Zambrana and Dill 2006). Diabetes is the fifth most common cause of death among the

¹ The terms used to describe ethnicity in this section are taken from the source being drawn from. This is why there is a lack of consistency in my use of the descriptors “Latino/a,” “Hispanic,” etc.

Latino population in the U.S. (both immigrant and U.S.-born) (Ramírez et al. 2013). In Mexico, it is *the most common* cause of death, accounting for 14.7% of annual deaths (Pan American Health Organization 2012 citing General Directorate of Information of the Secretariat of Health of Mexico). Nonelderly adult Mexicans who have lived in the U.S. for over 10 years have the highest prevalence rate of type 2 diabetes (10%) (Ramírez et al. 2013). The participants in this study all belong to this sub-group.

METHODS

Recruitment of Participants

This study is an analysis of original research, which consists of information gathered through semi-structured individual interviews about experiences with diabetes, and how conceptions of risk influence those experiences. After obtaining approval for this study from the Institutional Review Board at the University of Arizona, I recruited participants from three locations: a health education class held at a local community center, from the community center in general, and a free diabetes exercise class held at a local health center. Sara², the educator who ran the health education class permitted me to attend each week and participate in classroom activities in order to meet participants.

I met Sara in the spring of 2016 through professional connections between researchers of health disparities and the Tucson public health provider community. After telling her I was looking for a way to recruit Mexican immigrants living in Tucson to discuss their experiences with diabetes, she suggested that I attend a preventative health education class that she would be leading that summer.

² All names used in this project are pseudonyms chosen either by the participant or the researcher.

The class was held weekly at a local community center, and each meeting lasted two hours. The course was designed by health educators in Mexico *for* fellow Mexicans. All communication was in Spanish. Each meeting involved a short lecture given by Sara, or a guest speaker, on a particular health topic, followed by a group activity, such as creating a visual representation of what health meant to the class participants, and ended with 30 minutes of physical exercise, ranging from aerobics to chair dancing. In the first class meeting, Sara introduced me to the class, which consisted entirely of women who appeared to be between the ages of 30 and 70, and who were all Mexican immigrants. My role in the class was to help with activities when needed, and to listen and participate during the lecture and exercise portions of the meeting. All class members were friendly to me, but did not interact with me outside of the interactions I initiated. They all seemed to know at least some of the other class members, and mostly interacted with one another.

By attending the class, I also met other people at the community center, one of whom taught a diabetes exercise class at another location. She introduced me to the people taking her class, and I recruited a few more participants there, though I did not participate in the class as I did for the preventative health education class. I always approached people individually and spoke to them one-on-one when recruiting.

I am aware that recruiting people from classes geared toward health prevention and management influenced how people were thinking about diabetes at the moment of the interview. I made it clear that I was not affiliated with the classes, but because the instructors introduced me to the class members and described my project, it is possible that participants associated my project with goals of the classes, which were generally to educate and to promote individual behavior modification. Because knowledge production is context-dependent, this

could have influenced how participants framed their conceptions of diabetes in the interviews. In this thesis, I look at how people are describing their conceptions of and experiences with diabetes in the context of participating in these classes.

I wanted to talk to people born in Mexico, rather than include people from other Spanish-speaking countries, because I wanted participants to come from a similar cultural background. Similarly, I chose to interview people who currently live in Tucson because of the common experiences this would provide. Thus, in order to be eligible for the study, an individual had to 1) have been born in Mexico, 2) currently live in Tucson, and 3) have at least one family member with type 2 diabetes, and/or have prediabetes or type 2 diabetes themselves. I included people who did not have diabetes themselves, but who had a family member with diabetes because I wanted to analyze people's conceptions of heritability, and whether or not that impacted their sense of risk.

Data Collection

The interviews were conducted in Spanish (with one exception) and, with the permission of the participant, audio recorded. All participants seemed unbothered by the request to record the interview. Other than the participant and myself, there was no one else present for the interviews. The interview questions were tailored to reflect the diabetes status of the interviewee (i.e. the wording was changed depending on if the interviewee had prediabetes or type 2 diabetes, or if family members had type 2 diabetes) (see Appendices A and B). Topics covered in the interviews included: personal experiences with (pre)diabetes, diabetes causality (including heritability), (pre)diabetes management, the impact of (pre)diabetes on interpersonal relationships, access to health care, connections between stress and health, immigration in Arizona, and stress related to immigration.

The duration of the interviews ranged from 25 minutes to one hour and 50 minutes, though most lasted a little less than an hour. Interviews were conducted in private areas at the community center, a branch of the local public library, and the health clinic.

Transcription and Analysis of Interviews

I transcribed the interviews using Express Scribe Transcription Software v 6, into written Spanish, and double-checked them for quality assurance purposes. I then imported the interview transcripts into NVivo v 11 and analyzed them. The interviews were coded for topics relevant to the research questions, including diabetes management, emotion, and risk (see Appendix C for a comprehensive list of thematic codes). During analysis, I organized coded text by individual code, as well as by the convergence of more than one code. For example, I organized interview text coded for “heritability” and for “lifestyle” individually, but I also looked at instances in the text that were coded for both simultaneously. This permitted me to explore the connections between various themes that came up in the interviews.

RESULTS AND DISCUSSION

Study Population

Of the approximately 30 people that I met in both classes and at the community center, 10 people agreed to participate. All participants were immigrants from Mexico currently living in Tucson. Except for one person, I interacted with participants exclusively in Spanish. They either have a family member with type 2 diabetes, or themselves have prediabetes or type 2 diabetes. Demographically, participants varied by age, gender, and state of origin in Mexico. They also varied by diabetes status, documentation status, and the length of time they have lived in Tucson.

Table 1. Variation in Characteristics of Study Participants

	n [^]
Age (range (mean))	41-65 (52)
Gender	
Women	8
Men	2
Mexican state of origin	
Sonora	6
Guadalajara	1
Chiapas	1
Coahuila	1
Marital Status	
Married	6
Separated	2
Parent of child(ren)	
Yes	10
No	0
Diabetes status	
No (pre)diabetes*	5
Prediabetes	1
Type 2 diabetes	4
Family member(s) with diabetes	
Yes	8
No	1
Current documentation status	
Citizen	1
Legal resident	2
Undocumented	4
Years lived in Tucson (range (mean))	10-44 (20)

[^] Not all totals add up to 10, as some of these topics did not come up in every interview.

* Participants who did not have prediabetes or diabetes had at least one family member with diabetes.

Participants were between the ages of 41 and 65, with an average of 52 years of age.³ Eight were women and two were men. They originated from various Mexican states, though most came from Sonora, the state directly across the border from Arizona. Half of the participants did not have prediabetes or diabetes themselves, but did have at least one family member who had diabetes. Four participants had diabetes, and one had prediabetes. Of the seven individuals who disclosed their documentation status, four were undocumented at the time of the interview, two were legal residents of the U.S. and one was a U.S. citizen. Participants had lived in Tucson between 10 and 44 years, with an average of 20 years.

Conceptualizations of Risk

At the end of the first class meeting, Eddy, an exercise/mindfulness instructor from the Tucson community, came in to lead the 30-minute period of exercise. After introducing himself, he told the class a story about a doctor he knows who changed her career to help people with diabetes exercise in order to prevent amputations due to diabetes complications. He noted that those people who experienced those serious complications are usually people of color. As a person of color himself, he framed this anecdote as a critique of the heightened risks that people of color experience for developing diabetes and/or having severe complications from diabetes. He told the women in the class that they should not accept chronic disease as an inheritance, that “here it stops”.⁴ After this preamble, he demonstrated some meditation and stretching exercises that the class participants could do at home every day. He framed these exercises as tools at their disposal with which they could better control their stress levels, eating habits, and exercise habits, which would in turn positively impact their overall health.

³ I asked participants for their age, rather than their date of birth, because date of birth is an identifiable piece of personal information that was not necessary to gather for the purposes of this study.

⁴ “aquí corta”

This moment during the first class is an example of its overall tone. The course was designed by Mexican health experts for the general Mexican public, and it was taken up by a health educator in Tucson as a class tailored to the needs of Mexican immigrants living there. The content was a collection of tools that were relevant to the lives of class participants, that would help them manage the heightened health risks they faced as middle-aged Hispanic women, epidemiologically speaking (Narayan et al. 2003; Ramirez et al. 2013).

Risk was a prominent concept in the interviews, perhaps because of the tone of the classes from which I recruited most participants, or perhaps because in the interviews we discussed topics that suggest the concept of risk, such as what causes diabetes, how they felt a family member's diabetes impacts them personally, and how to prevent and manage diabetes. Participants viewed individual responsibility as an important ethical value in terms of managing risk. Individual responsibility plays a large role in risk discourse, as explored by other researchers. As a result of the neoliberal turn, individuals are now seen as responsible for their own welfare and "managing their own risks" (Ferguson 2015, 67). Individual choices are most commonly associated with risk, as opposed to other factors outside of individual control, thus placing the burden of responsibility for managing risk on the individual. Risk discourse in biomedicine perpetuates this idea of individual responsibility. The role of things beyond the control of the individual is acknowledged, but because lifestyle interventions are often more feasible than intervening with structural factors, many risk reduction interventions focus on individual behaviors (Lupton 1995).

There is a strong psychological and emotional impact to being at high risk. It orients people towards an uncertain future in which poor health seems likely. Once someone learns that they are at risk, it is always present for them (Gillespie 2012). Kavanagh and Broom (1998)

propose a third category of risk, in addition to environment and lifestyle risk, which people use to understand why someone becomes sick: “corporeal or embodied risk,” (437), or risk that is rooted in the body itself. For example, having a genetic predisposition for developing a specific type of cancer is interpreted as a risk that is located within the physical body of the individual. Gillespie (2012) and Kavanagh and Broom (1998) argue that there is no cultural model for how to be at risk, meaning that there are no culturally prescribed courses of action or expectations for how to feel when one is deemed to be at risk. However, I disagree. As Robertson (2000) found with women at heightened risk of developing breast cancer, being proactive and seeking some sort of preventative treatment or intervention goes along with what is expected of a responsible individual. People who were interviewed for this project focused on lifestyle interventions rather structural interventions or genetics when discussing diabetes prevention.

Themes of individual responsibility and heredity were prevalent in my conversations with participants. For example, rather than feeling that heredity alleviates individual responsibility for developing diabetes, Diana feels that being at risk for developing diabetes due to heredity is an even stronger incentive to change lifestyle habits in order to prevent it. Diana’s attendance at the preventative health education class and her efforts to eat more healthy food go along with what is considered reasonable behavior for a responsible individual faced with potential diabetes onset.

In her review of the concept of risk, Deborah Lupton (2013) points out, “The question of how risk-related discourses and strategies operate, how they may be taken up, negotiated or resisted by those who are the subject of them, remains under-examined” (141). In this section, I will explore how participants engage with risk in relation to diabetes. As with Mercado-Martinez and Ramos-Herrera’s (2002) findings, in all of the interviews, risk for developing diabetes was conceived of in complex ways: diabetes is not caused just by lifestyle or heredity, but a mixture

of the two; stress increases your risk for developing diabetes, but you still worry about developing it yourself when all your family members have it. Not everyone thinks that heredity is a factor in diabetes risk. However, for the six people I spoke with who think that diabetes *can* be inherited, lifestyle and heritability act as mutually reinforcing risk factors for its eventual development.

Heritability and Individual Responsibility

I met Diana through the preventative health education class offered at the community center in Tucson. She is in her early forties, and an immigrant from Mexico. She has lived in Tucson for 16 years. Most of her family lives in another Western U.S. state, with some family members still living in Mexico. She is married with two children, whom she worries about developing diabetes in the future. She is a stay-at-home mom, and her husband works to support the family. They currently have health insurance, though they all went through a period of several years where they did not because her husband was laid off his job and became self-employed.

Diabetes runs through both sides of Diana's family. Nearly everyone on her mother's side had diabetes, and most of them died from complications. There were also diabetic family members on her father's side of the family. In her generation, there are four siblings with diabetes, one of whom is nearly blind and had to have his finger amputated due to complications. Diana cited the prevalence of diabetes in her family as one of the main motivators for her to attend the class where we met. She wanted to learn how to prevent herself and her children from developing it in later years. Her siblings control their diabetes with medication and insulin injections, though she says that they haven't followed the doctor's instructions to change their diets.

The neoliberal conception of the individual influences how people think about responsibility and disease. Individuals are thought to be responsible for their own health, so if someone becomes sick, it is likely their own fault. This is especially true for diseases such as diabetes that are associated with certain lifestyle factors (Bell and Ristovski-Slijepcevic 2015; Robertson 2000; Seligman et al. 2014). Though the content of the classes I observed never blamed individuals for poor health, one of the underlying messages of the classes was that as individuals, attendees could improve their health outcomes through individual behavior change. Thus, individual behaviors were emphasized in the context where I interviewed people. When asked what causes diabetes in general, Diana explains:

Diabetes, I think, as I have seen it, by a bad diet, that's one. Eating [too much] fat and so much sugar, so much salt. [...] Not knowing how to eat well. Not going consistently to the doctor annually. Uh, through inheritance. So, yes you can prevent it, but we know that it's a disease that you'll never get rid of. So, the only thing that remains is to know that if there's a lot of diabetes in the family, one has to take care of oneself as if one already had it.^{5, 6}

Here Diana lists multiple causes of diabetes: diet, not going to the doctor regularly, and heredity. All are framed as factors within the control of the individual. Even though heredity cannot be controlled, she states that “if there is a lot of diabetes in the family, one has to take care of oneself as if one already had it.” Heritability of diabetes does not mean that she will certainly develop it in the future. Rather, for someone with many diabetic family members, the prevalence of the disease in her family is seen as increasing the risk of developing diabetes in the future herself, requiring that she care for herself *as if she already had it* in order to mitigate that

⁵ La diabetes, pienso yo, como lo he visto, por la mala alimentación, ese es una. La manera como no come las grasas y tantas azucares, tanta sal. [...] El no saber alimentarse bien. El no ir a revisarse constantemente con el doctor anualmente. Eh, y por herencia. Entonces este, sí se puede prevenir, pero sabemos que es una enfermedad que no se va a quitar nunca. So este, lo único que le queda uno es saber que si en la familia hay mucha diabetes, tiene uno que cuidarse como si uno mismo lo tuviera.

⁶ I included the original Spanish transcript throughout the thesis so that readers fluent in Spanish can see it in the original language.

risk. Even though Diana does not have diabetes, its prevalence in her family has led her to embody a state of at-riskness that is neither firmly within sickness nor health. (This concept is similar to the “at-risk consciousness” exhibited by the participants in Robertson’s study of embodied breast cancer risk (2000, 230), and the “corporeal or embodied risk” experienced by participants in Kavanagh and Broom’s study of women who had abnormal Pap smears (1998, 437)). Diana draws upon a discourse that is commonly found in illness narratives for chronic diseases such as diabetes. For example, she draws on her family’s personal history as well as clinical explanations to talk about diabetes onset and management among her family members (Hunt et al. 1998), and casts diabetes management in moral terms of responsibility and control (Seligman et al. 2014). Because diabetes is so prevalent in her family, and she believes that diabetes is at least partially caused by heredity, her discourse on morality and responsibility could be interpreted as an at-risk illness narrative for herself.

Other participants also expressed the idea that the hereditary nature of diabetes makes it that much more necessary to take care of oneself, rather than resigning oneself to one’s fate. Participants echoed Diana’s view that individuals have an obligation to take responsibility for their health. Tetela’s thoughts on her own diabetes is an example. Tetela is 50 years old and has also lived in Tucson for 16 years. She is married and has adult children, whom she stayed home to care for when they were young. She is still close to her daughters and her grandchildren, and tries to share nutritional information with them so that her grandchildren remain healthy. She has diabetes, and manages it by regularly attending the diabetes exercise class and watching her diet. She is proud of the fact that her blood glucose levels are more or less “normal,” without taking medication or injecting insulin. She attributes diabetes onset to lifestyle factors and heritability.

She thinks about how her father died young from diabetes because he did not take care of himself:

Well, I'm a big believer and... I believe in God and I believe that if my dad had it [diabetes] and he suffered because of that disease even though he didn't take care of himself, so what I think is that if he inherited it, I'm not going to have the same results as my dad, because he died really young. But he knew that he had diabetes and he ate sweets, he ate everything that you shouldn't eat. So I think that *I* am not going to do that. I know that God will take my life but also I contribute if I don't take care of myself.⁷

It seems she brings up religion in this context because she associates the concept of control with diabetes. Even though one cannot control heritability, or what God decides, it is still the responsibility of the individual to care for themselves to avoid developing diabetes, or to successfully manage diabetes.

The narrative of individual responsibility for diabetes prevention or management is commonplace in clinical medicine and in the preventative health education classes where I met several of these participants. For instance, in Seligman and colleagues' 2014 study, practices of self-care through management of diet and exercise habits were emphasized in clinical encounters experienced by low-income first and second-generation Mexican immigrants living with diabetes. A similar narrative appeared in my interviews, regardless of whether a participant had been diagnosed with diabetes. This speaks to the prevalence of the idea that regardless of genetics, the individual is ultimately responsible for their own health, and contrasts with the portrayal of Hispanics in the clinical medicine, public health, and sometimes anthropology literature as fatalistic (Hunt et al. 1998; Hunt and de Voogd 2005; Hunt 2005; Gany et al. 2006; Espinosa de los Monteros and Gallo 2011), or as deviating from biomedical explanations of

⁷ Pues... yo soy muy creyente y... yo creo en Dios y creo que si mi papá la tuvo y él padeció por esa enfermedad aunque no se cuidó, entonces lo que yo pienso es que si él heredó, yo no voy a tener los mismos resultados que mi papá, porque murió muy joven él. Pero él sabía que tenía diabetes y comía dulces, comía todo lo que no se debe comer. Entonces pienso que *yo* no voy a hacer eso. Yo sé que Dios me quita la vida pero también yo contribuyo si no me cuido.

disease etiology for diabetes (Mann et al. 2009). Cultural competency in medicine is often guilty of this portrayal. Rather than making medical professionals better providers of care to a diverse patient population, may encourage health care providers to place patients in simplistic and static cultural categories based on their ethnicity, nationality, or language (Kleinman and Benson 2006), which negatively impacts quality of patient care (Hunt and de Voogd 2005; Kai et al. 2007). An overly simplistic interpretation of what culture means can also lead to it being seen as a barrier to overcome when health care professionals and patients interact (Carpenter-Song et al. 2007; Harper 2004). In contrast to such cultural interpretation, the ubiquity of neoliberal understandings of individual responsibility in the participants' discussions suggests a familiarity with biomedical strategies for diabetes management. The findings of this study contradict the idea that Hispanic immigrants living in the U.S. have not been influenced by the hegemonic biomedical strategies for diabetes management. The participants in this study have gotten the message, and have internalized the neoliberal concern for individual responsibility.

For example, Libre, who is a *promotora*, disagrees with taking a fatalistic approach to diabetes. She attempts to share whatever knowledge she gains from attending free classes and workshops on health to encourage people to take charge of their health:

But I wouldn't say [...], "Don't worry, it's acquired." I would say to them, "Yes, worry and begin to take care of yourself [...]." That's what I would do if I were – I'm a *promotora* of the health community, so I [...] always take advantage of whatever moment, whatever circumstance to teach people.⁸

Just because there are elements outside of individual control does not mean that developing diabetes is a certain outcome.

⁸ Pero sobre que si se hereda, yo le diría a la gente, no diría [...], "No te preocupes, es adquirida." Yo le diría, "Sí, preocúpate y empíezate a cuidar [...]." Eso es lo que yo haría si yo fuera – soy promotora. De la comunidad de salud, entonces yo la gente, siempre aprovecho cualquier momento, cualquier circunstancia para enseñar a la gente.

Like Diana, most people I interviewed did not feel that the hereditary component of diabetes made it an eventual certainty that they would develop it. However, Carlos felt differently. Carlos is 60 years old and was diagnosed with type 2 diabetes 12 years ago. He regularly attends the diabetes exercise class as part of his extensive exercise regimen. He has many family members with diabetes, and he most recently developed it. When I asked him how his family feels about the fact that he has diabetes, he said they took the news well: “With my family, I’ve never had a problem. My family before me, they were already diabetic. So, to the contrary, I – when I told them that I had diabetes, they told me, ‘Welcome to the family,’ [laughs]... Because they already had diabetes [laughs].”⁹ He feels it was inevitable that he would eventually develop diabetes. However, he thinks that the onset of his diabetes was delayed due to his level of exercise. He continues to exercise as a way to manage his diabetes, as well as to offset the amount of food he eats, which he acknowledges as something that has been difficult to change since being diagnosed.

For most participants, lifestyle became an essential form of intervention to mitigate heightened risk if diabetes existed in their family. When asked what causes diabetes, Libre, who has prediabetes, responds:

Well, in my case, my dad told me that his [diabetes] was acquired... So he told me. I mean, since then my ignorance began, because for example he told me, like saying, “You’re not going to have mine,” he said, “It’s acquired, through your lifestyle.” It wasn’t that it came down through the generations. It wasn’t from his dad, from his mother, according to him. So I think that yes, the people whose family members have diabetes, well there’s a – we have learned that there is a predisposition so that... the following generations suffer from that. *But* I think that if I since I was young had had a healthy life, a healthy lifestyle, good nutrition and being more active, even though I was

⁹ Con mi familia, nunca he tenido problema [inaudible] mis – mi familia antes que yo, ya era diabética. Entonces, al contrario, me – cuando le dije que ya tenía diabetes, me dijeron, “Bienvenida a la familia,” [se ríe]... Porque ellos ya tenían diabetes [se ríe].

active, but in the sense that I was a hard worker but I didn't have a system for doing exercise, and I remember that when I did exercise I felt really good.¹⁰

She says that if she had understood that her father's diabetes increased her own risk of developing it, she would have been taking better care of herself. For Libre, as for other participants, this means that the heritability of diabetes necessitates even more careful control of one's dietary and exercise habits than if it were only determined by lifestyle.

Prediabetes is an example of the pre-illness category that has come about due to the increasing prevalence of risk discourse in biomedicine (see Gillespie 2012; Dumit 2012). People who are placed in this category frequently experience negative effects because they feel more vulnerable to illness (Homberg et al. 2015). For example, Libre is afraid of developing diabetes because she already feels she has "all the symptoms of diabetes"¹¹ (including waking up in the mornings feeling cramped and numb, feeling stinging sensations, feeling weak and tired, having increased hunger, and having a short temper), and she does not want to feel even worse. For years, she has regularly gone to health fairs and gotten her blood glucose levels checked, and the health care professionals there would always tell her she was fine, and that she did not have diabetes (yet). She wished that they had told her the significance of her readings inching higher over time, and that at some point she had become prediabetic. Being labeled as prediabetic made her feel a sense of urgency about changing her lifestyle in a way that was not true for her in years

¹⁰ Pues en mi caso, mi papá me dijo que la de él era... adquirida, que era diabetes. No era. Así me dijo él. O sea desde allí empezó mi ignorancia, porque por ejemplo lo me dijo, como diciendo, "Tú no vas a tenerme," dijo, "Es adquirida, por su estilo de vida." No era de que le venía de generaciones. No era de su papá, de su mamá, según él. Entonces pienso que sí, las personas que sus familiares tienen diabetes, pues hay una- hemos aprendido que hay una predisposición para que... las siguientes generaciones padezcan de eso. *Pero* yo pienso que si yo desde joven me hubiera tenido una vida saludable, un estilo de vida saludable, alimentación bien y ser más activa, aunque sí era activa pero en el sentido de que era trabajadora pero no tenía un sistema de hacer ejercicio, y yo me acuerdo que cuando hacía ejercicio me sentía muy bien.

¹¹ "todos los síntomas de la diabetes"

past. It made her feel the weight of individual responsibility to modify her lifestyle before it was too late.

As Hunt and colleagues (1998) found, explanatory models for diabetes onset are deeply rooted in people's personal histories or experiences as well as on common cultural narratives such as individual responsibility. This can be seen in Tetela's causal explanation for her own diabetes, which reflected other participants' views. Tetela says that she dedicated herself to being a mother, and thus neglected her own health in the process: "In my personal case it's... food and my sedentary life, I dedicated myself to being a mom and I didn't worry about my body. And bad nutrition. In my case I feel that's what caused it. Besides that my dad was diabetic."¹² Again, lifestyle and heredity are brought up together as concomitant risk factors.

Family Diabetes as a Warning

Most participants took diabetes in their family as a warning for themselves and their children, thinking that it increases their risk for developing it.¹³ Participants reported that these worries led to subsequent attempts to change the diets and exercise habits of their families and themselves. Diana represents herself as a rational actor, saying explicitly that she watches the mistakes that her family members with diabetes make, and all she can do is not make the same mistakes herself.

The understanding of risk in relation to diabetes is founded in discourse of neoliberal individual responsibility and risk management. Discourse on the importance of individual responsibility, including changing one's unhealthy habits and educating oneself about diabetes,

¹² En mi caso personal es que... la comida y mi vida sedentaria, me dediqué a ser mamá y no me preocupé por mi cuerpo. Y la mala alimentación. En mi caso yo siento que eso fue lo que provocó. Aparte que mi papá era diabético.

¹³ It is important to keep in mind that as participants in a preventative health education program or exercise class for people with diabetes, these are people who are actively seeking to do something for their personal health and that of their families.

was prominent in all of the interviews. For example, Tetela explained that even if diabetes is heritable, you still have a choice in how to handle it, and it is your responsibility to take care of yourself. Elena, who does not think that diabetes is heritable, says that it is not true that if you have diabetes, it will automatically kill you. Rather, it will kill you if you don't take proper care of yourself.

R: What do you think causes diabetes?

E: [Pause.] Well, it's a really delicate topic for me.

R: Yeah?

E: It's a really delicate topic for me, pretty complicated.

R: And why?

E: Because diabetes, it's not like if you have diabetes you're going to die, rather if you don't take care of yourself. If you don't take measure and you don't do prevention, it seems to me that it's really delicate because it's where you begin to lose... parts of your body, where everything, right? Everything goes downhill. Your state of *mind*, everything, I mean, you completely change... you feel a different way with diabetes. You don't feel like the same person.

R: Mm-hmm. So not taking care of yourself – do you think not taking care of yourself causes diabetes?

E: Yes. Yes, I think, it's what I think, it's not so delicate for them to tell you, "You have diabetes." You say, "Well, I have diabetes, but I can take care of myself."¹⁴

It pains her to see family members suffering and dying from complications, but she still thinks that her family members could do more to care for themselves and prevent complications. She calls this a "very delicate" topic, presumably because of the moral dilemma it implies.

For those participants who associated the experience of certain emotions as increasing

¹⁴ R: ¿Qué piensa que causa la diabetes?

E: [Pausa.] Pues se me hace un tema muy delicado.

R: ¿Sí?

E: Se me hace un tema bastante delicado, bastante complicado.

R: ¿Y por qué?

E: Porque la diabetes, no es que si tienes diabetes te vas a morir, que si no te cuidas. Si no tomas medidas y no tienes prevención, se me hace que es muy delicado porque es donde empiezas a perder... partes de tu organismo, donde ya ¿no? Va bajando todo. Tu estado de *ánimo*, todo, o sea, te cambia totalmente – es otro, es otra... te sientes de otra manera ya con la diabetes. No te sientes la misma persona.

R: Mm-hmm. Entonces no cuidarse - ¿piensas que no cuidarse causa la diabetes?

E: Sí. Sí, yo pienso, es lo que pienso, no es tan delicado que te digan, "Tienes diabetes." Dices tú, "Bueno, tengo diabetes pero me puedo cuidar."

risk for diabetes onset, they still felt that it was the individual's responsibility to take care of their health after diagnosis. Additionally, these participants still felt that their own lifestyle choices impacted their personal risk for developing diabetes. In this sense, explanations for diabetes causality did not seem to matter in terms of what an individual was expected to do either to prevent diabetes onset or successfully manage diabetes after diagnosis. All participants felt that there were factors outside of their control, but they still all agreed that there was something that could be done, and should be done, to mitigate risk for diabetes onset or complications from diabetes. Risk influenced much of the conversations around diabetes. Participants felt the risk of developing diabetes themselves or their children developing it, motivating them to change their lifestyle habits and to educate themselves and their children on diabetes. Having a family member with diabetes seemed to signal to participants their heightened state of personal risk, which led to a liminal state of at-riskness (Kavanagh and Broom 1998; Robertson 2000).

Associations of Emotion with Diabetes

Acute and chronic emotional experiences were also cited as causal factors for diabetes onset. In contrast with the perceived possibility for individual modification of lifestyle, the emotional experiences described by some participants as increasing risk of developing diabetes are less amenable to individual control. According to the literature, associating experiences of acute stress (“*un susto*,” “*un gusto*”) or chronic stress with diabetes is prevalent among Mexicans and Mexican Americans (Mercado-Martinez and Ramos-Herrera 2002; Mendenhall et al. 2010), though research has shown that associations between stress and diabetes are not limited to this population group (Schoenberg et al. 2005). The participants who associated emotion with diabetes onset tended to doubt that there is a hereditary component to diabetes, though they held a complex understanding of causality as they also associated lifestyle with an increased risk for

developing diabetes. Four participants cited acute stress, frequently characterized as *susto*, and two cited acute extreme happiness as the cause for diabetes onset. These experiences all involved significant interpersonal events, such as the sudden death of a son (*susto*) or the birth of a grandchild (extreme happiness). Elisabet, 55, reported that her diabetes developed 18 years ago as a result of having a misunderstanding with her husband that she feared would end their marriage.

E: Mm, I think that my diabetes developed when I was – when my daughter was nine. I had a surprise, [an experience of] anger and from there it began. Within the month I was really tired, really hungry, I wanted to eat everything, everything I wanted to eat. And like a headache, like a migraine, like that I don't know. I felt strange. I went to the doctor and they did the test and my blood glucose came out at 160, from sugar in the blood. [...] And from there they declared me a diabetic. Later, later [...] I think that that was the motivation for it [diabetes]. The surprise. The surprise that there was. I mean, I was afraid of losing my marriage, of being alone without my husband. I think that that's what it was. It's that. That's the reason.

R: Mm. And do you believe that it's the same for other people that develop diabetes?

E: Surprise, *los sustos*, yes. I think so.¹⁵

The stress of potentially losing her husband led to the appearance of symptoms for diabetes, which then led to her diagnosis.

Aurelia reports that her mother's diabetes developed from receiving the news that two of her sons had died in an accident and a third was in a coma. Aurelia's surviving brother remained in a coma for six months, and within that year her mother became very thin, and was diagnosed with diabetes.

Well, a lot of times I think... they say that it's hereditary, but, my mom, diabetes came to her from worry, from... bad news that she received. An accident, two of my brothers died

¹⁵ E: Mm, creo que mi diabetes se me desarrolló cuando tenía yo- cuando mi niña tenía nueve años. Tuve una sorpresa, un enojo y de ahí empezó. Como al mes yo tenía mucho sueño, mucha hambre, quería comer todo, todo quería comer. Y como dolor de cabeza, como jaqueca, como así no sé. Me sentía rara. Fui con el doctor y me hicieron la prueba y me salió 160 de glucosa de la sangre, de azúcar en la sangre. [...] Y de ahí me declararon diabética. Luego, luego [...] Y yo pienso que eso fue el motivo de él. La sorpresa. La sorpresa que hubo. O sea, tenía el temor de perder mi matrimonio, de quedarme sola sin mi esposo. Yo pienso que eso fue. Es eso. Es la razón.

R: Mm. ¿Y cree que es lo mismo para otras personas que desarrollan la diabetes?

E: La sorpresa, los sustos, sí. Yo pienso que sí.

and one was in a coma [...] It was really *hard* for them to receive news like that. I think like, what was it? Six months my brother was in a coma. And... I think that within the year it was detected that she had [diabetes], because she began to get really thin. Well also the death of my brothers, one day one died, another day the other died and they waited for the other [in the coma].¹⁶

Two participants also cited chronic stress, anxiety, or worry as a causal factor for diabetes onset. Eduardo, 65, reports that his diabetes developed because of all the stress he was experiencing trying to make payments on his house during a period when he was underemployed: "It's the stress because... at one time work was really low and I worried about making the maximum payments on the house. And that was what made me get to the point of diabetes."¹⁷

Three participants acknowledged that they have heard that one can inherit diabetes, and that perhaps it is true, but said that it is not the most likely cause of diabetes; rather, *susto*, extreme emotions, and chronic stress are more likely to cause diabetes. Marisol, 53, cites two examples of extreme emotion causing diabetes in family members. Marisol is the only one who says that both extreme emotions and heritability are causal factors for diabetes onset.

Well, I say that diabetes can come from a scare [*un susto*], from pleasure [*un gusto*], even though they tell me that it's a myth [laughs]. Well already, in those proved cases. Or one can inherit it. From the family. [I ask her to explain what she means by *un susto* and *un gusto*.] From a scare. I mean, like my brother, diabetes came to him because of the impact it made when they told him that my dad had cancer. And my mother-in-law, as far as I know, it was probably when my nephew was born. She was happy and... because of that.¹⁸

¹⁶ Pues muchas veces yo pienso... dicen que es hereditario, pero, mi mamá, le vino la diabetes digo de preocupación, de... una noticia fuerte que ella recibió. Un accidente, murieron dos de mis hermanos y uno quedó en estado de coma [...] Fue para ellos muy *duro* recibir una noticia así. Que pasaron yo creo como, ¿qué será? seis meses mi hermano en un estado de coma. Y... yo creo el año se le detectó ella que tenía, porque se comenzó ir muy delgadita se puso. Pues también la muerte de mis hermanos un día murió uno, otro día el otro y lo se esperaba el otro.

¹⁷ Es el estrés porque... en un tiempo estuvo muy bajo el trabajo y tener la preocupación de hacer los pagos máximos de la casa. Y eso fue lo que me vino hacer derramar hasta la diabetes.

¹⁸ Pues yo digo que la diabetes puede venir de un susto, de un gusto, aunque me digan que es mito [se ríe]. Pues ya, en esos casos de comprobado. Oh bien puede uno heredarlo. De la familia. [I ask her to explain what she means by

Aurelia, Eduardo, and Marisol all use the phrase “*me/le vino la diabetes*” (“diabetes came to me/them”), and Elisabet uses the phrase “*se me desarrolló la diabetes*” (roughly, “diabetes developed in me”) when explaining how an emotional experience precipitated the development of diabetes. This phrasing suggests the active agent in these situations was the diabetes, rather than the individual. How these participants talk about diabetes onset might be related to the fact that extreme emotional experiences are impossible to predict or manage, in contrast to lifestyle modifications or knowledge of genetic risk.

Elena and Aurelia both acknowledge that people say one can inherit diabetes, but they disagree that it’s true. Elena says that chronic stress and not caring for one’s health take a toll, and chronic diseases like diabetes develop as a result.

E: Well look, there are people that have told us that it’s... that it’s genetic. That it’s hereditary. That because the grandparents had diabetes that they pass it on. But, I say no. When you’re a big worrier, when you don’t take care of yourself, when you’re always tormented, when you’re always anxious, when you’re depressed, that is what causes it. And that’s where – if in case you have a family history, right? From your ancestors you all have diabetes. It could be, but I think that what most, that causes that is not taking care of yourself. Many diseases come to you, like it can be diabetes, it can be cancer, it can be tumors, it can be – but the number [one], the main one, is diabetes.

R: From not taking care of yourself.

E: From not taking care of yourself, by not taking care of yourself it’s the first to appear.

R: Okay.

E: From *un susto*, from *un gusto*, from everything they say, there are people that say no, that it can’t be either *un susto* or *un gusto*. But yes because I know people, who didn’t have anything, but had an accident and there it appeared. So there are a lot, right? A lot of version that say that it’s because... because family members have it. It could also be that, right? Because there are people that say that diabetes doesn’t appear until 20 years after.¹⁹

un susto and *un gusto*.] Por un susto. O sea, que como mi hermano que le vino la diabetes por la impresión que se llevó cuando le dijeron que mi papá tenía cáncer. Y mi suegra, hasta donde sé, probablemente fue cuando nació mi sobrino. Estaba feliz y... ahí por eso.

¹⁹ E: Pues mira, hay gente que nos ha dicho que es... que es genético. Que es hereditario. Que porque los abuelos tenían diabetes que se le van pasando. Pero, yo digo que no. Cuando eres muy preocupón, que no te cuidas, que siempre estas mortificado, que siempre estas angustiado, que estás en depresiones todo, eso es lo que te va ocasionando pues. Y es donde – si acaso tienes historial de que la familia, ¿no? De tus antepasados tienen la diabetes. Puede ser, pero yo pienso que lo más, que ocasiona eso es el no cuidarte. Te vienen muchas enfermedades,

She clarifies that experiencing an extreme emotion doesn't cause diabetes, but rather it triggers symptoms for undetected diabetes.

E: I mean, you have diabetes, it doesn't appear but you have *un susto* and in that moment it appears.

R: Okay. So, you have it for 20 years and you don't know it.

E: And *no*, you don't know, says the doctor.

R: Until having *un susto*.

E: *Un susto, un gusto, anger [un coraje]*, there are people whose diabetes appeared from *un coraje*.

R: Okay, so – you're saying that it doesn't cause diabetes, but it makes it appear.

E: Appear, uh-huh. It makes it appear.²⁰

However, for Elena, emotions as risk do not take away the worry and fear of diabetes potentially being hereditary. Elena talks about several older family members with diabetes who have experienced complications and/or death from diabetes:

Just now they told me that an aunt who appears that at best they'll have to cut off her legs is barely 65 years old. So I say if, if she had taken care of herself, right? She wouldn't have had to arrive at this. My mom, at less than 50 years old she died, they also cut her, first they cut a – she had a damaged nail. And then it kept happening, they cut off a finger, and then they cut off another bit, another bit until they cut off her leg. And she died from diabetes. An uncle also, they cut off his two legs [uses diminutive *piernitas*] I mean, there has been a lot of loss, of his body. At a young age. So, I ask myself, well... if it's hereditary, if it's through genes and that, right? But, well also if one doesn't take precautions, doesn't take measures, right? Because I'm the oldest by 12 years and until now it hasn't appeared. But I can't stay calm because who can say if in the future it could

como puede ser la diabetes, puede ser cáncer, pueden ser tumores, pueden ser – pero el número, el principal, es la diabetes.

R: De no cuidarse.

E: De no cuidarse, por no cuidarse es el primerito que aparece.

R: Okay.

E: De un susto, de un gusto, de todo dice, hay gente que dice que no, que no puede ser ni un susto ni un gusto. Pero sí porque yo conozco así personas, pero sí no tenía nada, pero tuvo un accidente y ahí le apareció. Entonces hay muchas, ¿no?, hay muchas versiones que dicen que será por... porque los familiares lo tienen. O también puede ser, ¿no?, porque... porque hay quien dice que la diabetes no te aparece hasta 20 años después.

²⁰ E: O sea, tú tienes diabetes, no te aparece pero tienes un susto y en ese momento ya te aparece.

R: Okay. Entonces, lo tienes por 20 años y no lo sabe.

E: Y *no*, no se sabe, dice el doctor.

R: Hasta que tener un susto.

E: Un susto, un gusto, un coraje, de un coraje también hay gente que le apareció la diabetes.

R: Okay, entonces no – dice que no causa la diabetes, pero lo hace aparecer.

E: Aparecer, uh-huh. Lo hace aparecer.

appear? So if I don't take care of myself I can also arrive at having diabetes [*tener el azúcar*], right?²¹

She wonders sometimes if diabetes is hereditary, thinking about all her family members who have it. Diabetes causality is a moral dilemma for Elena because of the question of individual responsibility for health. If diabetes is hereditary, then the individual does not have control over what happens. However, if diabetes is caused by external factors, such as chronic stress or diet, then the individual has the ability to control what happens to them. She seems to feel, at least to some extent, that taking care of one's health includes managing stress, implying that this is a risk factor that one can control.

It is important to note that although some participants did associate emotions with diabetes onset and/or worsening of symptoms, the majority of people I interviewed did not do so. While associating experiences of acute stress (“*un susto*,” “*un gusto*”) or chronic stress with diabetes is prevalent among Mexicans and Mexican Americans (Mercado-Martinez and Ramos-Herrera 2002; Mendenhall et al. 2010), this causal explanation for diabetes is not limited to these population groups, nor is it a sufficient representation of the complexity of conceptualizations of diabetes causality within these groups. As mentioned previously, Schoenberg and colleagues (2005) demonstrated the cross-cultural existence of association between stress and type 2 diabetes. They found that this explanation is more closely linked to socioeconomic status than ethnicity or cultural difference. Cultural context does influence the way people experience and talk about illness (Frank 2000), but researchers have to be careful not to homogenize complex

²¹ Ahorita me hablaron que es una tía que parece que a la mejor le tienen que cortar las piernas apenas tiene 65 años. Entonces digo si, si hubiese cuidado, ¿no?, no hubiera tenido que llegar a esto. Mi mamá, de menos de 50 años murió, también le cortaron, primero le cortaron un- tenía una uña manchada. Y luego ya se le fue pasando, le cortaron un dedo, y luego ya cortaron otro pedacito, otro pedacito hasta que a ella le cortaron una pierna. Y murió de diabetes. Un tío también le cortaron sus dos piernitas o sea, ha habido mucha pérdida, ¿no?, de su cuerpo pues. Ya muy temprana edad. Entonces, yo me pregunto bueno... si es hereditario, si es por los genes y eso, ¿no? Pero, pues también si uno no toma precaución, no toma medida pues, ¿no? Porque soy la mayor de 12 años hasta ahorita no me ha aparecido. Pero no me puedo quedar tranquila porque ¿quién quite que más adelante me pueda parecer? Entonces si no me cuida también puedo llegar a... tener el azúcar, ¿no?

explanations by shoving them into preconceived categories such as ethnicity or cultural difference (Kleinman and Seeman 2000).

In addition to attributing diabetes onset to extreme emotions, two participants also reported that having (pre)diabetes makes one more likely to experience negative emotions, such as anger or sadness. Libre felt that her father's diabetes made him angry all the time, and she feels that her prediabetes has made her more irritable:

I don't know, anything would make my dad angry. I would say, "Dad, how are you?" And he started to *tu tu tu tu* [imitating the language of someone that's shouting angrily]! [Laughs.] You know? But, I think that it was the diabetes. That he had such a... difficult character. So yes, prediabetes affects you. A person with prediabetes can't do well the same as a healthy person. We force ourselves and, I've seen women that get out ahead with this disease, but there are others that don't. It depends on your character. It also depends on the family, how they support you, how they have your back. Medical care, attention.²²

She says that whether or not one can overcome these negative emotions depends upon the individual's support system. Eduardo says that his only symptom for diabetes before it was detected was feelings of depression, which he attributes to his diabetes. Even though his diabetes is controlled now, his wife and his friends sometimes tell him that he acts angry and shouts, though he feels that they are misinterpreting his tone of voice. He attributes this change in his personality to diabetes.

In Elena's family, there is a stark contrast in outcomes of diabetes, which she attributes to structural inequality and the stresses of living in extreme poverty. Her family members with diabetes living in the U.S. have it under control because they have access to adequate health care and have the support of friends and family. Her family in Mexico live in extreme poverty and do

²² No sé, cualquier cosa se enojaba mi apá [papá]. Le decía, "Papá, ¿cómo está?" Y empezó a ¡*tu tu tu tu* [imitando el lenguaje de alguien que está gritando con enojo]! [Se ríe.] ¿Me entiendes? Pero, yo pienso que era la diabetes. Que tenía ese carácter tan... difícil. Entonces sí, afecta la prediabetes. Una persona con prediabetes no puede rendir igual que una persona sana. Nos esfuerzan y, yo he visto señoras que salen adelante con esa enfermedad, pero hay otras que no. Depende del carácter. También depende de la familia, cómo la apoyen, cómo la respaldan. El servicio médico, la atención.

not have adequate access to health care or medication. They experience depression and have diets that are unhealthy for someone with diabetes. Elena links quality of life with capacity to care for oneself.

E: It makes them sleepy, very tired. I always go to visit them, I'm the oldest. When I go to see them I stay for days there because I'm taking care of them, I tell them they can care for themselves. [...] As my parents, and my brothers have already died, my grandparents, everyone has died *young* because of diabetes. So, I tell them that there has to be prevention so that they don't also get to the same point.

R: Mm-hmm. Okay. And they take care of themselves?

E: Well there are some that do and some that don't.

R: Okay. Is there a difference between the ones that live here and those that live in Mexico?

E: Yes, because those that are here have a better quality of life. They have... they have appointments, right? Check-ups. They have their sugar controlled. They're always exercising, they take care of themselves through their food. The quality of life here is really different from the quality of life there.

R: Okay. In addition to not having insurance.

E: Apart from not having medical insurance, they live in conditions, right? In conditions of extreme poverty. And that also is what causes it.

R: Okay. Do they do other things to manage their diabetes?

E: Well yes, alternative medicines and they tell them to drink mint tea. They're taking care of themselves with that.²³

Living in extreme poverty makes it more difficult to manage diabetes, not only because of lack of access to adequate health care, but also because of the stresses associated with surviving in these conditions. Elena worries about her sisters in Mexico developing complications and/or

²³ E: Le da mucho sueño, muy cansadas. Yo voy siempre a visitarlas, yo soy la mayor, yo. Cuando voy a visitarlas yo me quedo días allá porque yo las estoy atendiendo, ya les hablo puede que se cuide. [...] Como mis papás, y mis hermanos pues ya han muerto, mis abuelos todos han muerto *jóvenes* a causa de la diabetes. Entonces, yo les digo que tienen que haber prevención para que no caigan ellas también en ese... cuadro.

R: Mm-hmm. Okay. ¿Y sí cuidan?

E: Pues hay unas que sí se cuidan y hay otras que no.

R: Okay. ¿Hay una diferencia entre las que viven aquí y las que viven en México?

E: Sí, porque las que están aquí tienen mejor calidad de vida. Ellas tienen... tienen las citas ¿no? de chequeo. El azúcar lo tienen controlado. Siempre están haciendo ejercicios, se cuidan con las comidas. Es muy diferente la calidad de vida de aquí a la calidad de vida de allá.

R: Okay. Además de no tener seguro.

E: Aparte de que no tienen un servicio médico, pues viven en condiciones ¿no? En condiciones de pobreza extrema. Y eso también es lo que les ocasiona.

R: Okay. ¿Hacen otras cosas para manejar la diabetes?

E: Pues sí, medicinas alternativas y les dicen que se tomen un té de menta. Con eso es con lo que se quedan cuidando.

dying from diabetes like other family members of hers have done; she fears that their living conditions increase those risks. Elena's worries and experiences reflect findings from other studies on structural inequality's impacts on stress and health (Mendenhall et al. 2010; Schoenberg et al. 2005). Elena was the only participant to explicitly link structural inequalities with diabetes onset and worsening of symptoms. Since this explanation has been documented in similar populations elsewhere (see Mendenhall et al. 2010 and Schoenberg et al. 2005), its absence is notable among the other interviews. Perhaps this is due to the preponderance of narratives of individual responsibility for health that the other participants draw on when discussing diabetes. This linking of poor health outcomes to larger processes does not mesh well with the idea of the individual failing to make changes in their lifestyle.

Modernity and Diabetes

Participants also drew on notions of individual responsibility when thinking about diabetes at the populational level. In every interview, I told the participant that rates of diabetes are increasing all over the world, especially in Mexico. I then asked them why they thought this was the case in order to solicit their informed opinion (as people who are from Mexico and who continue to have ties to the country) on larger processes that could be driving the increase in diabetes. In this section, I will focus on how changes associated with modernity are shaping people's conceptions of rising rates in diabetes. I will also discuss the relationship between traditional Mexican food and ideas about modernity.

People most frequently said that diabetes rates are increasing because of bad nutrition, a lack of exercise, and a lack of information about diabetes. Tetela blames the rise of diabetes among people of Mexican descent in the U.S. on a consumerist mindset which results in the neglect of children's nutrition:

T: Ah, well yes it makes me really sad, I feel bad because we have so many really good resources to have good nutrition. But we're doing what's most comfortable, the fastest. We don't want to make an effort to educate our families because as mothers, we are the ones that carry our children and... we aren't educating them.

R: Okay. Here in Tucson, you say that there are resources.

T: Yes. And here there's *more*, many food banks. That give you squash, so much squash [...] and tomatoes, onions. What is best for your health.

R: Mm-hmm. Okay. And why do you think that the diabetes rates are increasing?

T: It's that people are working a lot. They prefer to work than... and women right now prefer to work and earn money and dress their children like this, very... with the best brands but they aren't worrying themselves about love nor their diet. Because they're eight hours at a job, when they get home they don't want to do anything, they're tired. I think that it's that. I have seen around me, the community I'm in [...] the people that live here. They're choosing to work. And it's easier for them to work than to make a good breakfast for their children.

R: And how can one stop this increase?

T: I think that having more love for our children. That is the only thing that we can do. See that... what purpose does it serve that they're well-dressed in the best brands if they're not... if they're not well-*fed*, they don't look pretty. I think that they're lacking a lot of love.

R: Okay. Here and also in Mexico? Or is it different?

T: Uh, in Mexico it's different, we're more... more with the children. We care for them more and we put up with what we earn there [laughs]. Provided that we're caring for our children. And here, well, you have to be paying a lot. It's a very different form of life. It's *a lot* better, but we don't know how to balance. ²⁴

²⁴ T: Ah, pues sí me da mucha tristeza, me siento mal porque tenemos muchos recursos muy buenos para tener una buena alimentación. Pero nos estamos yendo lo más cómodo, más rápido. No queremos dar esfuerzo para educar a nuestras familias porque como madres, somos las que llevamos a los hijos y... no lo estamos educando.

R: Okay. Aquí en Tucson, dice que hay recursos.

T: Sí. Y aquí hay *más*, muchos bancos de comida. Que te dan las calabazas, muchas calabazas [...] y tomates, cebollas. Lo que es más bueno para tu salud.

R: Mm-hmm. Okay. ¿Y por qué piensa que están subiendo los índices de diabetes?

T: Es que la gente está trabajando mucho. Prefieren trabajar que... y las mujeres ahorita prefieren trabajar y ganar dinero y traer a los niños así, muy... con las mejores marcas pero no se están preocupando ni del amor, ni de su alimentación. Porque están ocho horas en un trabajo, cuando llegan a casa ellas no quieren hacer nada pues, están cansadas. Yo pienso que es eso. Y lo he visto con mi alrededor, la comunidad con la que yo estoy, que son bastantes mis – la gente que vivimos aquí. Están optando por trabajar. Y se les hacen más fácil trabajar que hacerles un buen desayuno a sus hijos.

R: ¿Y cómo se puede parar este aumento?

T: Yo pienso que teniéndole más amor a nuestros hijos. Eso es lo único que nos puede hacer. Ver que... de qué sirve que estén bien vestidos con las mejores marcas si no... si no están bien *alimentados*, no se miran bonitos. Pienso que les hace falta mucho amor.

R: Okay. ¿Aquí y también en México? ¿O es diferente?

T: Uh, en México es diferente, somos más... más con los niños. Los cuidamos más y nos aguantamos a lo que ganamos allá [se ríe]. Con tal de estar cuidando nosotros nuestros hijos. Y aquí, pues, hay que estar pagando mucho. Es una forma de vida muy diferente. Es *mucho* mejor, pero no lo sabemos balancear.

Tetela views mothers working outside the home as a “choice” rather than an economic necessity, and associates this with poor family diet, and a neglect of their children’s nutritional education. She sees this pattern as leading to an unbalanced lifestyle and implies that these family dynamics in the U.S. caused increased rates of diabetes in a way that is not happening among families still living in Mexico. This trend of increased reliance upon wage labor and the subsequent reliance upon processed foods is associated with the changing economic reality for many families, both in Mexico (Leatherman and Goodman 2005) and the U.S., which will be discussed further below.

In apparent contradiction with the ideas she expressed about how changing family dynamics contribute to rising rates of diabetes, Tetela attributes the onset of her own diabetes to dedicating herself to being a full-time mom, and neglecting her own diet and exercise habits to take care of her children. These seemingly paradoxical associations between disease and motherhood make more sense when interpreted in light of the morality of chronic disease and motherhood, respectively. Tetela appears to be representing herself as the traditional good mother, who sacrificed her own well-being for that of her children. As discussed earlier in this section, because diabetes onset is associated with certain lifestyle factors, developing it can connote a lack of self-control and irresponsibility for one’s own health. In this sense, diabetes also becomes a moral dilemma. By presenting herself as a moral mother, Tetela offsets potential judgement for developing diabetes. She contrasts this moral self-representation with mothers in the U.S. who go against traditional gender norms by working outside the home, supposedly to fund their desire for expensive commodities, to the detriment of the health and nutritional education of their children. This condemnation of working mothers bolsters the good mother ideal that she uses in this context.

Similar to Tetela's observation regarding the risks of societal changes and women working outside the home, Carmen, 53, says the fast-paced nature of modern life also makes it more practical to buy fast food rather than taking the time to prepare something healthy. Carmen has lived in Tucson for 34 years, and works at the community center where the preventative health education class took place. She says that the globalization of marketing processed foods has led to the increasing rates of diabetes all over the world.

The food, the junk food, the marketing of the food. The way we live life now. We're always on the run. We don't have time to cook healthy things at home, or if you do... very few people do it. But it's easier to just get into McDonald's and buy the food and to get home and you feed your children *wrong*, and it's the way life is. [...] But I think food is – the fresher you get, the better. And it's one of the things in Mexico we have such good, fresh things, *but* the globalization of marketing products now, even in Mexico, I think that's one of the things in – probably Mexico is one of the number one in the world because of the way food is processed.

She also points out that Mexico has an abundance of fresh food, but the marketing of processed foods has overshadowed that. Larger global processes are changing the diet in Mexico (and in the U.S.), leading to increased rates of diabetes.

In a seeming contrast to blaming a modern, processed diet, traditional Mexican food was also frequently brought up as being unhealthy, and a contributor to the development of diabetes. Six participants described Mexican food as containing too much fat/oil and flour (in the form of tortillas). Aurelia tells me that there is a lack of education about nutrition and diabetes in Mexico. “I say that at best, if it's hereditary or if not, [rates of diabetes are increasing in Mexico] because they eat a lot of fat. There's a lot of soda there. A lot of bread. I mean, there's neither a diet nor information.”²⁵ She says the most practical solution is to send educators to isolated ranches where people are preoccupied with making a living and feeding their families rather than

²⁵ Yo digo que a la mejor será, si es hereditario o si no, porque se come mucha grasa. Allá hay mucha soda. Mucho pan. O sea, no hay una dieta ni información.

diabetes risk. Additionally, the culture around food was described as being excessive and unhealthy. Carlos describes his unhealthy eating habits as another form of inheritance associated with diabetes:

R: What do you think caused your diabetes?

C: I think that [pause]... by, well what I think, one of two, inheritance. The inheritance from my mother and my brothers, the family. They had diabetes... and diabetes was going to hit me. At best it was delayed more by the exercise that I did, but. At the end of the day it comes. [...] But also from bad nutrition that is also an inheritance that we carry from our families.^{26, 27}

Eduardo, who also has diabetes, points to both stress and diet as causing diabetes:

E: Well, like I said at the beginning [of the interview], firstly are worries, stress. And the eating disorder that we have. Because we eat too much and we eat things that we shouldn't eat. Fat, flours, all of this is constant for diabetes [laughs].

R: Okay, and who is us?

E: All Hispanics.²⁸

In a series of articles for NPR, journalist Jason Beaubien (2017a; 2017b) cites higher wages as the source for increased rates of diabetes, linking it to higher rates of soda consumption, street food, and processed food.²⁹ He frames this change in consumption patterns

²⁶ R: ¿Qué piensa que causó su diabetes?

C: Yo pienso [pausa]... por, bueno lo que pienso yo, uno de dos, la herencia. La herencia de que mi mamá y mis hermanos, la familia. Este, tenía diabetes... y me iba a pegar diabetes. Que a lo mejor tardó más por el ejercicio que yo hacía, pero. A fines de cuenta viene. [...] Pero por la mala alimentación que también es una herencia que traemos de nuestras familias.

²⁷ Carlos disagreed outright with the assertion that diabetes rates are increasing rapidly all over Mexico. He points to differences in life between Mexico City and Tucson, with life in Mexico City involving a lot more physical activity because one has to walk everywhere, rather than drive. In making this comparison, he shows how life in the U.S. is less active, making it more likely that someone could develop diabetes. Rather than living in Mexico itself being a risk factor, as is suggested by news reporting on the matter (Beaubien 2017a; Beaubien 2017b), in his view lifestyle is still the determining factor.

²⁸ E: Pues, como le dije al principio, primeramente pues, son las preocupaciones, el estrés. Y el desorden alimenticio que tenemos. Porque comemos demás y comemos cosas que no debemos de comer. La grasa, las harinas, todo eso es... constante para la diabetes [se ríe].

R: Okay, ¿y quién es nosotros?

E: Todo hispano.

²⁹ From what I could find, Mexican media reporting on increasing diabetes rates do not have the same moralizing tone, and do not mention Mexican food as a culprit. Rather, the focus tends to be on soda consumption, and the government's efforts to reduce it through soda taxes (Montemayor 2017 as an example).

as a particular cultural phenomenon, titling one piece, “Pork Tacos Topped with Fries: Fuel for Mexico’s Diabetes Epidemic” (2017b), and saying in another that “Coca-Cola is practically the national drink in Mexico,” (2017a). He reports, “In 2012 Mexico was the world's top per capita consumer of soda in the world *guzzling* 176 liters per person per year” (ibid., emphasis added). Carmen and Aurelia point to these trends in Mexico as well, in that fast/processed food and soda are being increasingly marketed and consumed there without commensurate public health education on the matter. However, representations of Mexican food, such as Beaubien’s, as nutritionally bad, are misleading and harmful because they lay the blame for soaring rates of diabetes at the feet of Mexico as a cultural entity, rather than placing changes in food consumption in a larger historical and political context.

These negative conceptions of traditional Mexican food and Mexican eating habits appear to be internalized racist notions about the health of Mexican culture, as well as a tacit endorsement of the modern as positive. In the context of discourse that Beaubien’s (2017a; 2017b) articles represent, characterizing Mexican food and practices around eating as harmful is an example of the internalization of inferiority that comes from living in a racist society (Fanon 1986). Because so many participants brought this topic up unprompted, I assume that the alleged unhealthy nature of Mexican food is something that they had heard from people in positions of authority, such as health care providers or health educators. Citing this as one cause of rising rates of diabetes among Mexicans and Mexican Americans could be interpreted as an attempt to distance themselves from this supposed shortcoming of their cultural heritage. Because diabetes rates are so high among Mexicans and Mexican Americans, this puts individual people in a position of having to negotiate stereotypes of what it could be about their ethnic group, a gloss for race (see Montoya 2011), that is making them so sick. In Fanon’s (1986) words, “I was

responsible at the same time for my body, for my race, for my ancestors” (112). By characterizing traditional Mexican food as harmful, they are managing outside perceptions of their own bodily knowledge, knowledge of other Mexicans, and the traditions of their ancestors encapsulated in food and food practices.

The explanation of traditional Mexican food causing diabetes does not make sense because diabetes rates are only recently increasing this drastically in Mexico, but Mexican cuisines have existed for centuries. Additionally, studies have shown that a traditional Mexican diet can be low in fat and high in fiber (Kulkarni 2004), and that a Mexican-style diet with a moderate glycemic index and high fiber content improves dyslipidemia (Jiménez-Cruz et al. 2004) and metabolic control (Jiménez-Cruz et al. 2003) in individuals with type 2 diabetes. Plus, diabetes rates are increasing globally (World Health Organization 2016), which suggests some other explanation(s).

Leatherman and Goodman (2005) examine rising rates of obesity and diabetes among the Yucatec Maya in Mexico in their argument regarding “dietary delocalization,” or a shift in consumption from local to non-local foods (ibid., citing Pelto and Pelto 1983). Leatherman and Goodman examine the impacts of the tourism industry in Yucatan through the “commoditization of food systems,” and the increased conjunction with processed foods that are high in fat and sugar. The commoditization of food exacerbates existing socioeconomic and racial/ethnic inequalities:

...growth in the commoditization of foodstuffs typically also means higher market prices that stress the budgets of the poor, thereby resulting in a decreased diversity of foods and nutrients in local diets. Junk foods, including sodas and colas, are highly advertised, widely available, inexpensive, and prominently displayed in local stores (ibid., 186).

The Yucatec Maya historically grew staple crops on communally owned land, but they have increasingly become reliant upon wage labor and buying food in the local markets with the

growth of the tourism industry. Leatherman and Goodman associate this systemic change in diet with higher rates of diabetes among the Yucatec Maya because of the comparably poor nutritional quality of processed foods.

After the implementation of NAFTA, a sizeable portion (one-third) of Mexico's population could no longer afford to farm or grow their own food, as with the Yucatec Maya in Leatherman and Goodman's study, leading to mass migration out of rural areas (de León 2015). With the population shifting toward wage labor, and not having access to land to grow fresh produce for home consumption, it makes sense that there has been an increase in consumption of street and processed foods. Because these structural changes are caused by global economic processes that induce scarcity and precarity in Mexico, and are negatively influencing the nutritional quality of food consumption, one could interpret the rising rates of diabetes in Mexico as the embodiment of inequality.

It is important to keep this historical and political context in mind when thinking about changes in food consumption in Mexico. Rather than Mexican food as "fuel for Mexico's diabetes epidemic," one should look at the impacts of structural adjustment and international neoliberal economic policies on how the Mexican population lives today.³⁰

Diabetes Management

Negative emotions were a prominent theme throughout all the interviews. Though this section continues to explore the theme of responsibility, I focus more explicitly on how responsibility is viewed in terms of diabetes management, and what emotional responses participants have to diabetes management. In these interviews, diabetes management was seen as largely an individual responsibility, though some participants did report that social support is

³⁰ I do not have the space to deal with this topic in-depth here, but the links between neoliberal capitalist policies, subsequent changes in diet, and increasing rates of diabetes definitely merit further inquiry.

necessary for successful management. This emphasis on individual responsibility in management led to negative emotions both for the person with diabetes and their family members, as well as feelings of blame on the part of family members. Negative emotions cause conflict within families, and in the instance of depression or feelings of resignation, impede self-care. It also caused a lot of emotional pain because blaming their loved ones for their complications conflicted with participants' feelings of empathy.

A distinction should be made between explanations of diabetes causality and explanations of management after onset. There was a wider variety of explanations for causality among participants than for management. This perhaps reflects the significance of personal history in diabetes illness narratives (Hunt et al. 1998; Mercado-Martinez and Ramos-Herrera 2002). After onset, everyone agreed that one has to take care of one's health by changing diet and exercise habits, perhaps reflecting how diabetes was presented in the preventative education class and the diabetes exercise class. It is also possible that participants associated me with the instructors of the two classes, despite my efforts to communicate that I was not affiliated with the classes, and they wanted to demonstrate that they had learned the message of that class. Additionally, this homogeneity in explanations of diabetes management could stem from the increased presence of the biomedical clinic in people's lives post-diagnosis.

I asked various questions to get at how participants or their family members manage diabetes, including, "What causes those [diabetes] symptoms to get worse?", "Do you have any strategies for making the symptoms less severe?", and "Does anything get in the way of you/your relative being able to manage your/their diabetes?" Most participants named diet as a way to successfully manage diabetes. Other management strategies included following the doctor's instructions, taking prescribed medications appropriately, and generally living a healthy life.

Continuing with one's life like normal was also mentioned as a coping strategy for either participants or their family members. Four participants associated successful management with social support from family and friends. When I asked Elena if anything interferes with her family members' ability to manage their diabetes, she responded in the affirmative and cited interpersonal conflict and lack of social support as being detrimental to diabetes management:

Yes, something interferes because, for example, there are some that have the means, right? To deal with their diabetes. But they don't have support. Whether it's the support of the spouse, whether the support of children. There's a lot of conflict [*polémica*]. A lot of conflict. Because not all families have that privilege of having communication, of having a stable family, having, right? So that interferes a lot.³¹

Even if someone has the resources to successfully manage diabetes (such as access to medication, fresh fruits and vegetables, opportunities to exercise regularly, etc.), without social support it is still difficult. Elena implies that lack of social support includes interpersonal conflict, as well as lack of understanding on the part of family members about what changes diabetes management might entail.

Because participants felt that the individual is largely responsible for diabetes management, many expressed negative feelings toward family members with diabetes who they felt were not successfully managing their diabetes. Participants experienced a moral dilemma because of conflicting urges to blame their family member for unsuccessful management and to feel empathy for their suffering. Unsuccessful management (e.g., not modifying one's lifestyle enough, not taking one's medication, not following the doctor's instructions, and experiencing complications and/or early death) are seen as the fault of the noncompliant individual. When the individual's health declines, they are blamed for not doing enough to manage their diabetes

³¹ Sí interfiere algo [...] Sí, interfiere porque, por ejemplo, hay unas que tienen los medios, ¿verdad?, para atenderse a su diabetes. Pero no tienen el apoyo. Ya sea apoyo de *esposo*, ya sea apoyo de *hijos*. Hay mucha polémica, pues. Mucha polémica. Porque no todas las familias tienen ese privilegio de tener comunicación, de tener una familia estable, de tener, ¿no? Entonces interfiere eso mucho.

(Ferzacca 2000; Borovoy and Hine 2008). This resulted in interpersonal conflict for participants in this study. Diana and Aurelia, for example, feel that their family members with diabetes do not take it “seriously enough” or are in denial about the ramifications of their diagnosis.

Talking about witnessing her family members who live with diabetes, Diana expresses the sadness she feels when thinking about the fact that diabetes is incurable.

Well, I know that it's an incurable disease, or perhaps it is, I don't know exactly, I don't know very well. I know that it's treatable, that you can you can maintain a balance if you take your medications and you eat well like your doctor tells you, as he indicates to you. Um, you worry because first of all the – nobody wants a loved one to be sick more than anything. And you worry because the first thing you think about is... the amputations of the extremities, that they're such independent people [...] [and] they can't take care of themselves... they get sicker, they become sad, you become sad when seeing how they're going... um, draining their energy, their will to go on, so um, it depresses you, you become sad because the last thing you want is for a family member to be sick.³²

It is depressing for Diana, and depressing for the person who has diabetes. In addition to the physical suffering, Diana points to how the person's independence is taken away as the complications progress, which makes it more difficult for the person as well as their caretakers. Diana's older sister, Rosalva, was diagnosed with diabetes relatively recently, and has not experienced any permanent complications. She takes her medicine and does insulin injections, but according to Diana, she has not changed her eating habits. In contrast, Diana's brother, Damian, has known about his diabetes for longer, and he has severe complications; he has nearly completely lost his sight and had to have a finger amputated. He lives with his siblings in California, rotating from one household to the next because he can no longer care for himself. Diana observes that her brother's lack of responsibility in self-care led to his current poor state of

³² Pues me- sé que es una enfermedad que es incurable, o quizás sí, no sé exactamente, no conozco muy bien. Sé que es tratable, que lo puedes mantener equilibrada si tomas tus medicamentos y te alimentas bien tal cómo te lo dice el doctor, cómo te lo indican. Este, te preocupas porque primeramente los- nadie quiere que un ser querido esté enfermo más que nada. Y te preocupas porque dice lo primero que piensas es... las amputaciones en las extremidades que son personas tan independientes [...] ellos no pueden valerse por sí mismos... se enferman más, se entristecen, te entristeces tú al ver cómo se van... este agotando sus energías, sus ganas de continuar, entonces este, te deprime, te pones triste porque lo menos quieres que un familiar esté enfermo.

health, and the difficulties that his family members face in providing care for him. She is drawing upon a discourse of individual responsibility and rationality in the face of the obvious, for her, consequences of not changing one's diet after being diagnosed. Here, a loved one is not successfully managing their diabetes, and as a result is experiencing complications. The moral dilemma lies in the diabetic's failure to take personal responsibility for managing the condition, and in a loved one blaming the person with diabetes for this failure despite wanting the best outcome for their family member.

Diana expresses frustration with both her siblings because she feels that they take their diagnoses "so lightly, that they don't worry so much". She voices her sister, Rosalva, when describing the lack of seriousness she thinks her siblings feel towards having diabetes:

[Sighs.] It was my sister... like she says, she says, "I have learned to live with it." She says. Because, well logically, it won't go away – she does try to care for herself more moderately... Um, she says, "And I learned to live with it and the only thing I have to do is... force myself a little more to care for myself better." And the other one [Damian], well... what little is left to him is... simply to eat what he likes. And I don't know the point. The point is that... ah... you're [addressing Rosalva] young in comparison to the others [siblings] and you don't take care of yourself. Well, um... what more can I tell you? Eat what you want to eat then, but the one who's affected will be you afterwards. But the mentality of what they say, ah, how do you say it? How do you name it? Well, eh I live with it. I learned to live with it and what more can I do? It's true one learns to live with a disease but also one has to learn to know how to eat, to know how to feed yourself well, and more than anything is taking medication like you should and... following the doctor's instructions. That's all it is to say [*no nada más es decir*], "I already learned to live with it," because nobody learns to live sick.³³

³³ [Suspira.] Fue mi hermana... como ella dice, dice, "Ya aprendí a vivir con ella." Dice ella. Porque, pues lógico, no se va a quitar- ella sí trata más moderadamente cuidarse. Este... dice, "Y aprendí a vivir con ella y lo único que tengo que hacer es... forzarme un poco más por cuidarme mejor." Y el otro, pues, el que te digo que le importa más [inaudible] dice... ah... pues lo poco que le queda es... simplemente comer lo que le da el gusto. Yo no sé el punto. El punto es que... ah... estás joven a comparación de los demás y no te cuidas. Pues, entonces este... pues siento te [inaudible] ¿qué más podemos decirte? Come como quieres comer entonces, pero el afectado va a ser tú después. Pero la mentalidad de que dicen, ah ¿cómo decir?, ¿cómo se la nombra?, pues eh vivo con ella. Aprendí a vivir con ella y ¿qué más puedo hacer? Es cierto uno aprende vivir con la enfermedad pero también uno tiene que aprender a saber comer, saber alimentarse bien, y salvo [¿] más que nada es tomar el medicamento como es debido y... seguir las indicaciones del doctor. No nada más es decir, "Ya aprendí a vivir con ella," porque nadie aprende a vivir enferma.

For Diana, her sister's declaration that "I have learned to live with it" is contradicted by her failure to change her diet or follow her doctor's instructions. Later in the interview, Diana references her sister's phrase again as she talks about the consequences of not taking diabetes "with that seriousness that you should do with this disease":

D: When they're without a leg, they depend upon another. Later after a while what will happen is that [...] what one will have to do is change their underwear, clean them, bathe them, so... they're not going to like that. No more saying I have learned to live [with it].

R: So she [Rosalva] hasn't changed her life a lot. But she says this?

D: No. She's like this taking medication but she doesn't stop eating her little treats [*gustitos*].³⁴

Throughout the interview, Diana navigates expressing feelings of sadness, frustration, and anger towards her family members with diabetes. Beginning with expressions of empathy and sadness, she later emphasizes how angry and frustrated she is with them for not changing their eating habits in addition to taking medication after their diagnosis. She represents herself as a moral person while expressing these negative emotions through emphasizing her rationality (citing the importance of following a strict diet and taking medications as directed by a doctor) and the lack of individual responsibility that her family members are demonstrating. She says that all she can do is look at their unsuccessful management and not follow their example.

From the perspective of the person with diabetes, however, this conflict over disease management can be perceived as family members trying to control their behavior. For example, Elisabet who lives in Tucson with her husband and her 10-year-old son, manages her diabetes with medication and through diet. Elisabet told me that she knows her own body better than her

³⁴ D: Cuando están sin una pierna, dependen de uno. Ya después al rato lo que va a pasar es que [...] uno va a tenerse que cambiar la ropa interior, limpiarlos, bañarlos, entonces... eso no les va a gustar. No nada más de decir ya aprendí a vivir.

R: Entonces ella no ha cambiado mucho de su vida. Pero ¿dice eso?

D: No. Es así toma medicamento pero no deja de comer sus gustitos.

family does, so they have no business telling her how to manage her diabetes. She feels anger and/or sadness at times when her family tries to control her behaviors.

R: Does diabetes have an impact on the relationships between yourself and your family or friends?

E: No. An impact, no. Like what –

R: Like... activities that you can do with them or, for example, not being able to eat the same food at parties.

E: That, yes. They don't let me.

R: That? Okay.

E: They don't let me. When we go to parties, yes, I eat the food that they give me but I see, for example, if it's pasta, if it's meat, if it's beans or rice, I see that – if I eat a little bit, of everything, it's not going to hurt me. If I eat the *whole* plate, yes that's going to hurt me. That's where. So, they get mad at me and tell me, "No, no, don't eat." Or they come distribute the cake, and well, I just watch it pass by.³⁵

What could be interpreted as familial concern, is interpreted as controlling behavior, and a lack of respect for Elisabet's management of her own health. Here, her family appears to attempt to share in the responsibility for her health, but she bristles at their intrusion on what she sees as her responsibility. As Borovoy and Hine (2008) found with elderly Russian immigrants who have type 2 diabetes, Elisabet understands the importance of self-management, but feels that sometimes bending the rules a bit is more important than always strictly following a clinical regimen of care. By participating in a social function through eating small portions of foods considered unhealthy for a person with diabetes, she is "trading off continual control for other cherished values," (ibid., 8) such as fully partaking in the festivities at a party.

³⁵ R: ¿Tiene un impacto la diabetes en las relaciones entre usted y sus familiares o amigos?

E: No. Un impacto, no. Como qué, qué –

R: Como... las actividades que puede hacer con ellos o, por ejemplo, no poder comer la misma comida en las fiestas.

E: Eso sí. No me dejan.

R: ¿Eso? Okay.

E: Eso no me dejan. Cuando vamos a las fiestas, sí, sí me como mi comida que me dan pero veo, por ejemplo, si son pastas, si son carne, si es frijol o arroz, yo veo que – si como un poquito, de todo, no me va a hacer daño. Si como *todo* el plato, sí me va a hacer daño. Ahí es donde. Entonces ellos se enojan conmigo y me dicen, "No, no, no comas." O vienen repartir del pastel, y pues yo no más lo veo pasar.

For Elena, it is painful to think about individual responsibility for diabetes management because so many of her family members have complications from diabetes, or died at a young age because of complications. She seems reluctant to place all responsibility for their health upon them, however. She also cites structural inequalities as making self-care more difficult when one has diabetes, not only because structural factors places limitations on resources, but also because living in poverty takes its toll on mental and emotional health.

Additionally, the fact that diabetes is incurable can also lead to feelings of sadness, depression, or resignation, which in turn leads to unsuccessful management. Elena uses the example of what happened to her mother to illustrate the connections between these negative emotions and complications/death from diabetes.

And they don't take care of themselves because they say, right? Because if you go to the doctor, he tells you, "Well, you already know that you have diabetes, and one day you're going to die [from it]." Because there are doctors that are really cruel. When this happened to my mom, "You have diabetes and if you, well *even if* you take care of yourself, it will become diabetes, you will have it all your life." *Like that*, there are really cruel doctors. And they even cut off a leg that they didn't have to have cut off [...]. And when they [the doctors] got there they told her, "Why did they cut off your leg? [...] No, no, no!" he said. "They shouldn't have cut off your leg." So she, from complete depression from seeing that happen, she died. It was really *painful*.³⁶

The combination of her experiences with the insensitive doctor and the unnecessary amputation of her leg caused her mother to fall into a depression. Elena connects her mother's depression with a decline in her health, and her subsequent death.

The emphasis on individual responsibility for diabetes management appeared to cause a lot of emotional pain when participants talked about loved ones with diabetes, whom they

³⁶ Y no se cuidan porque dice, ¿no?, porque si vas con el doctor, te dice, "Bueno, ya sabe usted que tiene diabetes, y algún día se va a morir." Porque hay doctores que son muy crueles. Cuando mi mamá se le pasó, "Usted tiene diabetes y si usted, pues ya *aunque* se cuide, llega lo que sea la diabetes, lo va a tener toda la vida." *Así*, hay doctores muy crueles. Y inclusive a mi mamá le cortaron una pierna que no se la tenían que haber cortado [...]. Y cuando allá llegaron le dijeron, "¿Y por qué le cortaron la pierna? [...] ¡No, no, no!" dijo, "Es que a usted no debieron de haberle cortado la pierna." Entonces ella, de pura depresión de ver que pasó eso, ella murió. Fue muy *doloroso*.

blamed for their complications from diabetes for failing to take responsibility for managing their own health. Blaming their loved ones for their complications seemed to conflict with participants' feelings of empathy, which appeared to be the source of this emotional pain. However, several participants also brought up the importance of support for successful management, mainly in order to counteract depression and/or resignation on the part of the person with diabetes.

There is a large body of literature on the comorbidity of type 2 diabetes and depression. In a comprehensive review of the relationship between diabetes and depression, Egede and Ellis (2010) found that "coexisting depression in people with diabetes is associated with" myriad negative outcomes, including "decreased adherence to treatment, poor metabolic control, higher complication rates, decreased quality of life, increased healthcare use and cost, increased disability and lost productivity, and increased risk of death" (302). In their study of first- and second-generation Mexican immigrant women seeking diabetes care at a hospital in Chicago, Mendenhall and Jacobs (2012) argue that "social distress plays a role in depression among people with diabetes" (136). Some of the most common stressors reported by these women were also brought up by the participants in my study, including stress related to health, family, immigration status, and feeling socially isolated. Some participants directly associated feelings of sadness, depression, or resignation with unsuccessful diabetes management.

Elisabet and Carmen both brought up lack of social support, and feelings of isolation and depression, as an explanation for unsuccessful management of diabetes among friends or family. Elisabet talked about wanting to follow an exercise regimen designed for people with diabetes, to keep herself moving, and she brings up how programs for people with diabetes would help those who are socially isolated and experiencing symptoms of depression.

E: Yes, because a lot of people [...] give up. Do you know what “to give up” [*abandonarse*] is?

R: Mm-hmm.

E: Like not taking care of yourself, like not taking your medications on time.

R: Mm-hmm.

E: Mm... not eating well, sleeping all that they want. I have a person that’s like that.

R: Yeah?

E: She gave up on herself. Her mother died. Her mother was the one who looked after her. The mother died, and she remained with diabetes. And that lady... she gave up. She doesn’t look after herself. She has animals in her house. Like cats. She has cats, she sleeps with her cats, she’s happy having them there with her, sleeping with her. And she’s happy with this. She doesn’t pay attention to eating. She doesn’t go to classes, she doesn’t go out to walk, nothing! She doesn’t clean her house. That’s how she is. She gave up. She’s abandoned.³⁷

Carmen’s father was left in a similar situation, which also negatively impacted his emotional and physical health. After Carmen’s mother divorced her father, his entire family left Mexico, and he remained behind with no support system. Carmen attributes this lack of support with the rapid decline in her father’s health. She also stated that support is essential for successful diabetes management because it is sometimes difficult to practice self-care, even when one knows the consequences.

Yeah, and there is always somebody, like needs to care for the other. And I think when you know that you can have diabetes, you don’t care, you just, do you know? And there is always that other person that *wants* to take care of you, not yourself. That’s what I saw with my father. Like, knowing that all his family died from diabetes, still knowing the consequences, they don’t care. And the other person is the one that cares, but you get tired of taking care of somebody.

³⁷ E: Sí porque mucha gente [...] se abandona. ¿Sí sabes que es abandonarse?

R: Mm-hmm.

E: Como no atenderse, como no tomarse sus medicinas a tiempo.

R: Mm-hmm.

E: Mm... no comer bien, dormir todo lo que quieren. Tengo una persona que así es.

R: ¿Sí?

E: Ella se abandonó. Murió su mamá. Su mamá era la que atendía. A ella. Murió la mamá, y se quedó ella con diabetes. Y esa señora... se abandonó. No se atiende. Tiene animalitos en su casa. Como gatos, pues. Tiene gatos, duerme con sus gatos, ella es feliz teniéndolos allí con ella, durmiendo con ella. Y ella es feliz con eso. No hace caso de comer. Ella no va a clases, ella no sale a caminar, ¡nada! Ella no limpia su casa. Así es. Se abandonó. Está abandonada.

Whether through personal loss or fear of loss in the future, all participants have been affected by diabetes. Because diabetes has such serious implications for people's health, and because its management is so intimately associated with individual responsibility, negative emotions were a very prominent theme throughout all the interviews. Exploring how emotions are related to experiences of diabetes is essential to understanding the internalization of neoliberal individual responsibility because it is the failure to live up to these expectations that is the cause of emotional strife. The strong emotions surrounding diabetes signal that these neoliberal expectations affect people's relationships at a profound level. Half of participants reported that in their personal experience, sadness or depression can be caused by diabetes. Elisabet said that sadness is a symptom of her diabetes, but aspects of the disease also cause sadness. She feels sad when her family members try to control what she eats because it shows they do not understand the embodied knowledge that she has: she knows her body better than they do, but in spite of this they do not trust her to make healthy choices.

Four participants (Diana, Elena, Carmen, and Elisabet) reported that their friend(s) or family member(s) with diabetes had feelings of resignation, which led to unsuccessful management of their disease. The attitude of family members reported by some participants was that they already had diabetes, they know what will happen from watching other family members sicken and die from complications, but because it is incurable, they feel that taking care of oneself is pointless. Feelings of resignation were often associated with sadness or depression.

Elena's family members feel sad about having diabetes, and sometimes they do not have the motivation to take care of themselves. I asked her how her family members feel about the fact that they have diabetes, and she responded, "Well *also*, they're sad also, right? – and sometimes they don't want to take care of themselves and I tell them, 'Be careful! Take care of

yourselves.’ ‘No!’ they say. ‘Or anyways we’re not going to die.’”³⁸ Elena explains that one becomes so familiar with diabetes that one starts to feel resigned to the fact that one has it, and that there is nothing one can do about it.

R: Your family members don’t like to talk about diabetes?

E: No, they don’t like to. If someone – no, they don’t like to. They avoid that subject.

R: Okay. But do your other family members talk about the fact that the others have diabetes?

E: Yes, yes! The other family say, “No! Well look, your mom died from *diabetes*. *Take care of yourself* because if you don’t take care of yourself the *same* thing could also happen to you.” Yes, I mean, the family is always worried for their family, so yes, they tell them, “*Careful*, you’re *young*. Don’t eat *that* because it could cause you to go into a *diabetic* coma.” Because yes, there are places where they can go to inform themselves, or rather, nobody is going to charge you for giving you information. Nobody is going to charge you, but a lot of the time you’re so familiarized with this disease... that you say, “Well, I already have it. [Pause.] What can I do?”³⁹

The fact that it is incurable, and the fact that they already have it overwhelms her sisters, and negatively impacts their self-care.

Carmen’s father also experienced depression which interfered with his self-care. Carmen attributes this to the disappearance of his social support system.

He got remarried with a very young girl, I mean, she was just there for the money. No. Nobody was taking care of him but *him*, and he was just, I guess depressed and we all left Mexico so my mother continued with a good life, do you know what I mean? So he’s the one that did the damage but he got the consequences of the whole thing [laughs a little]. Because to be alone, nothing, nobody to take care of him, and then he got sick and ill, and then I went to Mexico one day and just I said, “You know what? Come with me.” And I brought him and I just took care of him for two years.

³⁸ Pues *también*, tienen estados de ánimo también, ¿no?, de tristeza de – y en veces no se quieren cuidar y les digo, “¡Miren! Cuidense.” “¡No!” dicen. “O de todas maneras no vamos a morir.”

³⁹ R: ¿Sus familiares no les gusta hablar de la diabetes?

E: No, no les gusta. Si alguien – no, no les gusta. Ellas evitan esa plática.

R: Okay. ¿Pero hablan los otros familiares del hecho de que los otros tienen la diabetes?

E: ¡Sí, sí! Los demás familia dicen, “¡No! Pues mira su mamá murió de *diabetes*. *Cuidate* porque si no te cuidas también te puede pasar lo *mismo*.” Sí, o sea, siempre la familia se preocupa por la familia, pues sí les dicen, “*Mira*, tú estás *jovencita*. No te comas *eso* porque te puede dar ocasionar, ¿no?, un coma *diabético*.” Porque sí hay lugares donde pueden ir a informarse, o sea para darte información nadie te va a cobrar. Nadie te va a cobrar, pero muchas veces estás tan familiarizada con esa enfermedad... que dices tú, “Bueno, ya la tengo. [Pausa.] ¿Qué puedo hacer?”

Negative emotions work as either motivators to change lifestyle or foster a sense of resignation. Participants who have seen family members experience complications from diabetes worry that they or their children will develop it in the future, which serves as motivation to change their lifestyle. For people with diabetes, negative emotions such as sadness, depression, or resignation are associated with the incurable nature of the disease. Participants reported that these negative emotions interfered with the ability of their family members to successfully manage their diabetes.

Caregiving and the Border

For those who have family members with diabetes living in Mexico, the U.S.-Mexico border loomed in their stories as a barrier keeping them from providing care to loved ones who need support. This forced separation, due to people's inability to re-enter the U.S. because they are undocumented, takes an emotional toll on the interviewee, as well as a physical toll on their family member(s) who live in forced separation from potential caregivers.

Carmen described how her father's quality of life improved immensely once she brought him to the U.S. If she had been unable to do so because of her documentation status, the last few years of her father's life would have been much worse.

Participants expressed sadness at watching their family and friends with diabetes, especially those that have complications. For Elena, whose family lives in Mexico and cannot join her in the U.S. due to immigration laws, the separation contributes to her worry because she is not able to provide continuous care for them. Every time she visits, someone's health has worsened.

R: How do you feel about the fact that your family member has diabetes?

E: Well I feel pretty worried because I've seen how my family has been ending up [*se ha estado acabando*], my family continues deteriorating. Yes, I'm worried.

R: For your sisters?

E: Yes, for my sisters, for an aunt, for all my family because I go to visit them and when I go, well, there are always losses. [She begins to cry.]⁴⁰

Her godmother, who is 80 years old, has diabetes. She lives in Tucson, and has a good support system, which differs drastically from that of the godmother's younger sister with diabetes, who lives in Mexico. Her sister has more complications, and is in danger of having her legs amputated, and Elena's godmother wants desperately to visit to take care of her. However, Elena has told her godmother that even though she is healthy, she is in no position to go help her sister because she is elderly and would have to miss doctors' appointments to do so. The border separates Elena and her godmother from sick family members in need of support, which causes sadness and worry on their part.

The border also prevents Aurelia from taking care of her mother, who has diabetes. She and her brother are the only surviving children, and Aurelia is unable to travel freely back and forth from Mexico: "Well, my family there tells me, yes, that she looks really worn out. Since I can't see her, I can't go there [to Mexico], so they tell me that they see her declining, that she's... older."⁴¹ Although her brother is more able to take care of their mother than Aurelia, she says that it's the woman who ends up taking charge of caregiving, implying that her brother does not make the effort that she would if she were not stuck in the U.S.

She doesn't want to understand, but yes... everyone is looking out... because they tell her, "They're going to cut off a leg, you're going [to lose] a foot," or something [...] because an... aunt already has two legs cut off. And they tell her, "Do you want to be the same?" they tell her. And I tell her, "I don't want to see you like that," I tell her. Because

⁴⁰ R: ¿Cómo se siente usted del hecho de que su familiar tiene la diabetes?

E: Pues me siento bastante preocupada porque he visto cómo la familia se ha estado acabando, se va deteriorando la familia. Sí, estoy preocupada.

R: ¿Por sus hermanas?

E: Sí, por mis hermanas, por una tía, por toda la familia porque yo voy de visita a visitarlas y cuando voy, pues, siempre hay pérdidas. [Empieza a llorar.]

⁴¹ "Pues mis- mi familia allá me dice, sí, que la ve muy acabada. Como yo no puedo verla, no puedo ir para allá, entonces me dicen que la miran decaída que está... más viejita."

she's alone, who's going to relieve us? Who's going to look after her? Yes, I was the only daughter and [there is] a brother, but, well it's more the woman who takes charge of her parents.⁴²

Given the importance of social support in successfully managing diabetes, the border creates situations within families where those who are most in need of support are cut off from their loved ones. The border itself can be seen as a contributor to unsuccessful management of diabetes.

Elena and Aurelia were the only participants to bring the border up as a barrier for successful diabetes management, so I cannot develop this topic much further here. However, because there are so many undocumented migrants from Mexico living in the U.S., who ostensibly have family members still living in Mexico, and because diabetes rates are so high in Mexico, I think that the border as a barrier to caregiving and health management is a topic worthy of further inquiry. I plan on exploring it in future research.

CONCLUSION

Conceptualizations of diabetes among Mexicans and Mexican immigrants living in the U.S. have been a popular research topic for several years (Hunt et al. 1998; Mann et al. 2009; Mendenhall et al. 2012; Mendenhall and Jacobs 2012; Mendenhall et al. 2010; Mercado-Martinez and Ramos-Herrera 2002; Weller et al. 1999), but this thesis has a less common focus by examining biomedical and neoliberal conceptions of diabetes in etiological explanations of Mexican immigrants living in the U.S. In in-depth interviews, participants focus on conceptions of heritability and management, revealing how ideas of responsibility and emotions are inter-implicated. Mexican immigrants *do* use biomedical explanations for diabetes onset and

⁴² Ella no quiere entender, pero sí... todos son al pendiente de que... porque le dicen, "Te van a cortar una pierna, te vas a un pie," o algo [...] porque una... tía ya lleva las dos piernas cortadas. Y pues le dicen, "¿Quieres estar igual?" le dicen. Y yo le digo, "No quiero verte así," le digo. Porque pues ella es sola, ¿quién nos va a aliviar? ¿quién la va a atender? Sí, yo nada más fue la única hija y un hermano, pero, pues más es la mujer la que se encarga de sus papás.

worsening of symptoms, rather than in ways distinct from biomedicine (e.g. *susto* or *nervios*). While not all researchers who focus on these culture-specific explanations for diabetes do so to the exclusion of other explanations, there is always that danger of “forcing it [an illness narrative] to conform with preconceived cultural categories” (Kleinman and Seeman 2000, 233). My focus on the causal explanations for diabetes of heritability, lifestyle, *and* experiences of emotion among this demographic provides an important counterpoint to research which analyzes the latter explanation exclusively. I explicitly take an approach that does not conceive of cultural difference as a barrier (Carpenter-Song et al. 2007; Harper 2004). This project is placed within the context of existing research conducted by Schoenberg and colleagues (2005) that demonstrates that the connections between structural inequalities, chronic stress, and diabetes are not unique to Hispanic groups.

I also focus on conceptions of heritability and management, and how ideas of responsibility and emotions are implicated. The interpersonal effects of diabetes onset and management are not closely examined in the existing literature. This is a novel approach to Kleinman and Seeman’s (2000) call for more medical anthropology research on the experience of illness: I extend the experience of diabetes to having a family member with diabetes. People whose family member has diabetes experience the disease in a twofold manner. For those who do not have diabetes themselves, they experience an embodied state of being at higher risk for developing it (due to the hereditary aspect of diabetes onset), and they witness/participate in their family member’s experience of the disease. Combined with the ubiquitous conceptions of individual responsibility for onset/management, this twofold experience of diabetes leads to a moral dilemma: blame the individual, someone you care about deeply, and try not to follow their “bad example” to preserve your own health, but at the same time feel empathy while watching

the individual experience complications and/or death from diabetes. These dilemmas lead to interpersonal conflict among family members, which can negatively affect emotional support.

Recruiting people from classes geared toward health prevention and management meant that I was able to investigate how people engaging with public health interventions thought about diabetes. As is characteristic of most public health interventions, the goals of the classes were to educate and to promote individual behavior modification (Harper 2004). Tacit within these goals is a representation of the individual as a rational actor who is ultimately responsible for their own health.

The neoliberal conception of the rational individual is linked with neoliberal restructuring of world economies, namely in that structural supports of the individual are broken down and the individual becomes an autonomous agent (in other words, completely on their own). With the expansion of neoliberal modernity, there have been global changes in how people make a living and what foods they eat, including in Mexico. An increase in the portion of the population relying upon wage labor, and a simultaneous increase in the commoditization of food (Leatherman and Goodman 2005) is linked with rising rates of diabetes in Mexico. Neoliberal structural reforms are yet another set of factors that ostensibly impact diabetes rates, but instead things like consumer ignorance, traditional Mexican food, and nonadherence to biomedical advice for diabetes prevention are held up as the culprits. There are several harmful impacts of neoliberal individualist discourse on health within biomedicine and public health. It can negatively impact social support. It conceals structural factors that shape the possibilities of individual health practices, and that negatively impact health outcomes. Instead, the individual is blamed for poor health outcomes, which has moral implications for notions of self-control and responsibility.

Immigrants living in the U.S. face unique health disparities due to structural factors, such as lack of adequate access to health care (Parmet 2013) and lower rates of health insurance coverage (Derose et al. 2007). Mexican immigrants have the highest rate of uninsurance among any immigrant group in the U.S. (Ramírez et al. 2013). Undocumented immigration status increases vulnerability to poor health outcomes to an even greater extent (Carney 2015b; Holmes 2012; Horton 2016; Horton and Barker 2009; Willen 2012).

Focusing on type 2 diabetes makes it possible to incorporate these bigger structural considerations. Diabetes impacts Hispanic groups in the U.S. at disproportionate levels (Narayan et al. 2003; Ramírez et al. 2013). Groups with the highest rates of diabetes and the most severe complications live in poverty and often belong to marginalized ethnic or racial groups (Everson et al. 2002). In addition to the structural factors that impact an individual's ability to successfully manage diabetes, this thesis has shown that emotional health is closely linked with diabetes ((Schoenberg et al. 2005; Mendenhall et al. 2010) and general physical health (Crocker 2015). Because of this close association of social stress and diabetes, especially among Mexicans and Mexican Americans, investigating Mexican immigrants' experiences with diabetes is a way to simultaneously investigate how experiences of political, economic, and social marginalization negatively impact health. As Barker (2004) discusses, diabetes can be understood as the result of the embodiment of structural inequalities across generations.

Focusing on experiences of type 2 diabetes among Mexican immigrants who live in the border region permitted me to explore various topics: health disparities, the embodiment of inequality, immigration politics, individual responsibility, the impacts of chronic stress on health, and how people's conceptualizations of disease risk impact their own sense of health as well as their interpersonal relationships. More importantly, it provides evidence of the negative

emotional and physical impacts of biomedical and neoliberal discourse of individual responsibility for health.

Future Research

Something that struck me during the interviews was the negative impacts of the border on people's ability to provide care to family members with diabetes. I touch on this briefly, but there is much more to be investigated on this matter. I plan to continue on with this topic for my dissertation research by studying how international family networks cope with the stresses of migration and how caregiving is modified in the context of migration. How is embodied inequality experienced through relationships maintained across international borders? How do US immigration policies, border militarization, and experiences of ethno-racial discrimination influence relations of care in families with diabetic family members who are separated by the international border? Do these restrictions on caregiving negatively impact the health of family members living in the sending country?

My hypothesis is that border militarization, policy, and discrimination in the U.S. are affecting the ability of families to care for members with diabetes by severely restricting immigrants' options, and by negatively impacting immigrants' lives. However, I plan to conduct multi-sited ethnography in Southern Arizona and Northern Mexico with families whose members are separated by the border to gather more information.

APPENDICES

Appendix A: Interview Questions (English)

Introductory Questions:

- What pseudonym would you like me to use for you in my research?
- Do you have type 2 diabetes or borderline diabetes? If not, does a family member have type 2 diabetes? How are they related to you?
- How old are you?

Questions for People with Type 2 or Borderline Diabetes⁴³:

- When did you find out you had (borderline) diabetes?
- What symptoms do you have? Were there any warning signs you had (borderline) diabetes? If you have borderline diabetes and were to develop type 2 diabetes, what do you think would cause it?
- What causes those symptoms to get worse?
- How does your family feel about you having (borderline) diabetes?
- Do you feel like there are things you enjoy that you aren't able to do anymore because you have (borderline) diabetes?
- What do you think causes diabetes in general?
- What do you think brought on your (borderline) diabetes?
- Do you have any strategies for making the symptoms less severe? For maintaining your overall health?
- What have health care workers told you to do in order to manage your symptoms? Do you follow their advice? Why or why not?
- Do you think diabetes can be passed down from parents to their children? *If yes*, what strategies do you have to deal with that? Prevention? Communication?
- Do you smoke cigarettes or chew tobacco? *If yes*, have you discussed with a health care provider how tobacco use affects symptoms of diabetes? Have you noticed any connections?
- Is there someone that helps you manage your diabetes? *If yes*, who is it? What do they do to help?
- Does anything get in the way of you being able to manage your (borderline) diabetes? *If yes*, what is it?
- Has diabetes impacted your relationships with family or friends? *If yes*, how?
- Rates of diabetes are increasing all over the world, especially in Mexico. How do you feel about this? Why do you think that rates of diabetes are increasing? What do you think could be done to stop it?
- Do you have any unanswered questions about diabetes that you would like us to talk about in class?
- What have you always wanted to ask a doctor/nurse about but never have?
- How often do you see a health care provider? Are you able to go as often as you would like? *If no*, why not?
- What are the most difficult things about dealing with (borderline) diabetes?
- What parts of your life cause you the most stress?
- How do you think your experiences with stress impact your health?

⁴³ I only asked relevant questions for someone with borderline diabetes, not all the following.

- What experiences have you had that have negatively impacted your health? They can be either one-time events or events that happened repeatedly over time.
- How long have you lived in Tucson? *If not whole life*, where are you from originally?
- How do you think people feel about immigration in Arizona?
- Do you experience any stress around being an immigrant in the U.S.?

Questions for People with a Diabetic Family Member⁴⁴:

When did your relative know that they had diabetes?

- What symptoms do they have? Were there any warning signs before diagnosis?
- How do you feel about your relative having diabetes?
- How does your relative feel about having diabetes? Do they talk about it at all? Do your other family members ever talk about it?
- Has diabetes impacted the relationship you have with your relative? Has it impacted their relationships with your other family members? *If yes*, how?
- What do you think causes diabetes in general? What do you think brought on your relative's diabetes?
- Do you think diabetes can be passed down from parents to their children? *If yes*, what strategies do you have to deal with that? Prevention? Communication?
- Do you have any strategies for maintaining your overall health?
- Do you smoke cigarettes or chew tobacco? *If yes*, have you discussed with a health care provider how tobacco use is related to diabetes? Have you noticed any connections?
- Is there someone that helps your relative manage their diabetes? *If yes*, who is it? What do they do to help?
- Does anything get in the way of your relative being able to manage their diabetes? *If yes*, what is it?
- Rates of diabetes are increasing all over the world, especially in Mexico. How do you feel about this? Why do you think that rates of diabetes are increasing? What do you think could be done to stop it?
- Do you have any unanswered questions about diabetes that you would like us to talk about in class?
- What have you always wanted to ask a doctor/nurse about but never have?
- How often do you see a health care provider? Are you able to go as often as you would like? *If no*, why not?
- What parts of your life cause you the most stress?
- How do you think your experiences with stress impact your health?
- What experiences have you had that have negatively impacted your health? They can be either one-time events or events that happened repeatedly over time.
- How long have you lived in Tucson? *If not whole life*, where are you from originally?
- How do you think people feel about immigration in Arizona?
- Do you experience any stress around being an immigrant in the U.S.?

⁴⁴ This set of questions was meant for participants who do not have prediabetes or type 2 diabetes, but do have a family member with diabetes.

Appendix B: Interview Questions (Spanish)

Preguntas iniciales:

- ¿Qué seudónimo quiere que yo utilice para referirme a usted en esta investigación?
- ¿Tiene usted la diabetes tipo 2 o la prediabetes? Si su respuesta es no, ¿tiene diabetes algún familiar suyo?
- ¿Cuántos años tiene usted?

Preguntas para las personas que tienen la diabetes tipo 2 o la prediabetes:

- ¿Cuándo se enteró usted que tenía la (pre)diabetes?
- ¿Qué síntomas tiene? ¿Había alguna señal de aviso que tenía la (pre)diabetes? Si ahora tiene prediabetes y si desarrollara la diabetes tipo 2, ¿qué cree usted que la causaría?
- ¿Qué hace que empeoren las síntomas?
- ¿Cómo se siente su familia sobre el hecho de que usted tiene (pre)diabetes?
- ¿Siente usted que haya actividades o cosas que le gustaba hacer y que ya no puede disfrutar a causa de la (pre)diabetes?
- ¿Qué considera que causa la diabetes por lo general?
- ¿Qué piensa que causó su (pre)diabetes?
- ¿Tiene usted alguna estrategia por disminuir los síntomas? ¿Para mantener su salud general?
- ¿Qué le han dicho los médicos profesionales que usted debe hacer para manejar sus síntomas? ¿Sigue usted sus indicaciones? ¿Por qué o por qué no?
- ¿Piensa usted que la diabetes puede ser heredada? *Si piensa que sí*, ¿qué estrategias utiliza para manejar eso? ¿Prevención? ¿Comunicación?
- ¿Fuma cigarrillos o ingiere tabaco de alguna manera? *Si lo hace*, ¿ha hablado con un médico sobre el efecto del tabaco en los síntomas de la diabetes? ¿Se ha enterado usted de alguna conexión?
- ¿Hay alguien que le ayuda a manejar la (pre)diabetes? *Si hay alguien*, ¿quién es? ¿Qué hace esta persona para ayudarle?
- ¿Hay algo que interfiera con su habilidad para manejar la (pre)diabetes? *Si algo interfiere*, ¿qué es?
- ¿Tiene un impacto la (pre)diabetes en las relaciones entre sus familiares o amigos y usted? *Si tiene un impacto*, ¿cómo?
- Los índices de diabetes tipo 2 están subiendo a nivel mundial, especialmente en México. ¿Cómo se siente sobre este tema? ¿Por qué cree que están subiendo los índices? ¿Cómo cree que se puede parar este aumento?
- ¿Tiene usted cualquier pregunta sobre la diabetes que le gustaría discutir durante la clase?
- ¿Qué pregunta tiene usted que haya querido siempre hacer a un médico profesional, pero nunca la haya podido hacer?
- ¿Qué tan a menudo visita a un médico profesional? ¿Es usted libre de hacerlo cuando quiera? *Si no es posible*, ¿por qué no?
- ¿Cuáles son las cosas más difíciles de manejar de la (pre)diabetes?
- ¿Qué partes de su vida son las más estresantes en cuanto al tema?

- Por favor, describa cómo sus experiencias estresantes afectan su salud.
- ¿Qué experiencias que haya tenido usted han afectado negativamente su salud? Aquí nos referimos a los eventos que hayan ocurrido una vez además de los eventos que haya sucedido repetidamente conforme el paso del tiempo.
- ¿Por cuánto tiempo vive en Tucson (o Arizona)? *Si no ha sido toda la vida*, ¿de dónde es usted originalmente?
- ¿Cómo se sienten las personas sobre el tema de la inmigración en Arizona?
- Si no es de Tucson (o Arizona)*, ¿se siente usted estresada en cuanto al ser inmigrante que vive aquí?

Preguntas para las personas que tienen un familiar con la diabetes:

- ¿Cuándo se enteró que su familiar tenía diabetes?
- ¿Qué síntomas presenta su familiar? ¿Había alguna señal de alerta alguna vez sobre si su familiar padecía diabetes?
- ¿Cómo se siente usted sobre este hecho?
- ¿Cómo se siente su familiar acerca del hecho de que él/ella tiene diabetes? ¿Habla él/ella de su enfermedad? ¿Hablan los otros familiares de su enfermedad?
- ¿Tiene un impacto la diabetes en la relación entre usted y su familiar? ¿Tiene un impacto entre su familiar y sus otros familiares? *Si es cierto*, ¿cómo?
- ¿Qué piensa usted que causa la diabetes, por lo general?
- ¿Qué piensa usted que causó la diabetes de su familiar?
- ¿Piensa usted que la diabetes puede ser heredada? *Si piensa que es así*, ¿qué estrategias utiliza para manejar eso? ¿Prevención? ¿Comunicación?
- ¿Tiene usted alguna estrategia para mantener su salud general?
- ¿Fuma cigarrillos o ingiere tabaco de alguna manera? *Si lo hace*, ¿ha hablado con un médico sobre el efecto del tabaco en los síntomas de la diabetes? ¿Se ha enterado usted de alguna conexión?
- ¿Hay alguien que ayude a su familiar a manejar su diabetes? *Si hay alguien*, ¿quién es? ¿Qué hace esta persona para ayudarlo?
- ¿Interfiere algo con su habilidad de manejar la diabetes? *Si algo interfiere*, ¿qué es?
- Los índices de la diabetes tipo 2 están subiendo en todas partes del mundo, especialmente en México. ¿Cómo se siente sobre este tema? ¿Por qué están subiendo los índices? ¿Cómo se puede parar este aumento?
- ¿Tiene usted cualquier pregunta sobre la diabetes que le gustaría discutir durante la clase?
- ¿Qué pregunta tiene usted que haya querido siempre hacer a un médico profesional, pero nunca la haya podido hacer?
- ¿Qué tan a menudo visita a un médico profesional? ¿Es usted libre de hacerlo cuando quiera? *Si no es posible*, ¿por qué no?
- ¿Cuáles partes de su vida son lo más estresantes?
- Por favor, describa cómo sus experiencias con el estrés afectan su salud.

-¿Qué experiencias que haya tenido usted han afectado negativamente su salud? Aquí nos referimos a los eventos que hayan ocurrido una vez además de los eventos que haya sucedido repetidamente conforme el paso del tiempo.

-¿Por cuánto tiempo vive en Tucson (o Arizona)? *Si no ha sido toda la vida*, ¿de dónde es usted originalmente?

-¿Cómo se sienten las personas sobre el tema de la inmigración en Arizona?

-*Si no es de Tucson (o Arizona)*, ¿se siente usted estresada en cuanto al ser inmigrante que vive aquí?

Appendix C: Thematic Codes

Diabetes management
Prevention
Successful management
Unsuccessful management
Emotion
Anger
Fear
Happiness
Resignation
Sadness
<i>Susto/nervios</i>
Worry
Immigration politics/enforcement/policy
Religious faith
Responsibility
Education/knowledge
Individual responsibility
Medical professional responsibility
Self-advocate
Risk
Emotion as risk
Heritability
Lifestyle
Sexual dysfunction
Stress
Abuse
Financial stress
Health stress
Immigration stress
Interpersonal stress

Structural inequality
Support
Traditional Mexican food

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