ABSTRACT

Perceptions of Healthcare in Rural Guatemala: The K'iche Story of Modern Medicine

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Among the K'iche Maya people of Momostenango, a rural city in highland Guatemala, the perceptions of healthcare are complicated, diverse, and very rarely investigated or assigned appropriate meaning. By interviewing both local medical professionals and Mayan priests in the summer of 2013, research was performed to see how these cultural perceptions affect the efficiency of healthcare in the region. By evaluating these interviews, it can be demonstrated that the K'iche people and modern medical professionals have many obstacles to overcome in order to achieve a unified healthcare system, which is both in line with the government's recommendations and is culturally applicable. While these solutions could not be resolved within the limits of the research, it is my hope that the gathered research can be accumulated for future endeavors toward these goals.

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PERCEPTIONS OF HEALTHCARE IN RURAL GUATEMALA:

THE K'ICHE STORY OF MODERN MEDICINE

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By

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DEDICATION

This body of work is dedicated to the K'iche Maya of Guatemala, to their stories of struggle and hardship within the healthcare system in highland Guatemala and to their hope for future progress.

CHAPTER ONE

Literature Review

The health care system in most Central American countries is a controversial topic of public health agencies and governmental organizations across the globe. With diverse ethnic groups, large indigenous populations, traditional and modern medicine working in the same location, it is a topic considered to be complicated at the very least. The country of Guatemala is situated very nicely into the middle of this issue. With a large proportion of the population consisting of indigenous Mayan groups, along with varied environmental zones across the country and a history of discrimination, genocide and war, the clash of cultural perceptions of health and the introduction of the ideals of western medicine have created a schism within the country.

Embedded within this controversy are the Maya of the Guatemalan highlands. Tucked away in nearly 100% indigenous populations, these communities avoid such complications of discrimination and lack of understanding of their cultural values by either avoiding the clinical medical setting altogether or by only seeking modern medical intervention in dire circumstances. Traditional medicines and the idea of healing rituals and sacrifices performed by local Mayan priests is seen as much more likely to

achieve a successful outcome than visiting the local clinic. Not only is there an understanding of the desired outcome of traditional medical intervention, there is also no need to explain an entire cultural perception of the world when seeking health care help from Mayan priests. While illness, infections, and diseases remain at a high level of incidence within the region, the indigenous populations largely resist modern medical interventions that could prevent such high instances. The idea of future illness due to the actions of the present is a rather unknown concept within the Maya culture. Medical intervention is sought when there is something "wrong" with an individual, and it is assumed that at times when the individual feels healthy there is no need for any type of medical supervision (Harvey, 2008). Thus, the idea of check-ups, vaccinations against future diseases and infections, and preventative behavioral methods are seen to be illogical, especially within the confines of the economic standing of the majority of the indigenous population.

The rise in incidence of chronic diseases and the sustained prevalence of malnutrition in this region is due to the combination of many factors. The transition from locally grown crops being the main source of nutrition to foods with much larger amounts of saturated fats is a large source of health concerns. Increasing incomes within the region that come from the expansion of industrialization and urbanization have led to a change in diet that is not necessarily beneficial to the agricultural economy within the

region, and has much more impact on the nutritional intake of the community. Combined with a lack of physical activity which industrialization brings, chronic malnutrition, increased instances of obesity and type 2 diabetes and the proliferation of other illnesses are a natural side effect (Little, 2012). Such chronic diseases and increased prevalence, specifically within indigenous populations have led to a health problem that could seriously damage the infrastructure of the country.

The way in which modern medicine is applied to indigenous peoples is a large part of the conflict within the health sector. The clash of cultural ideals of health and wellness and the modern medical trend towards preventative measures is a large part of the schism. Even the idea of a "patient" can be seen as an area of conflict. What cannot be physically seen or felt is very rarely thought of as illness within the larger Maya culture. Therefore, even the argument of medical professionals seeking to help those in the community who are ill can be a source of conflict, or at the very least, a misunderstanding. With such problems in communication between the two schools of thought, it can be easily understood why the Maya are so hesitant to participate in modern medical practices (Harvey, 2008). The idea of medical professionals being culturally competent is becoming a priority within the highland regions, specifically among those who do not already identify as a part of the indigenous culture. With each unique group of Maya, certain attitudes and actions must be learned and practiced in order to be

culturally salient. Learning what each individual group not only defines as illness and worthy of treatment, but also what traditional means are used to combat such illness is an effective way to integrate modern medical techniques into a group with efficiency. Because most groups will be supplementing whatever help they receive from public health organizations and modern medical techniques with their own traditional methods, knowing such means can help to create a more comprehensive overview of what is being done to the body and how such measures can be beneficial or disadvantageous when mixed together.

In one study, the Kaqchikel Maya perception of "not being attended" within the modern medical realm in the department of Sololá, Guatemala is explored. It is an exploration of the powerlessness and fear that the Maya encounter when they are faced with the struggle of participating in a modern medical system that has no basis in the culture. The history of discrimination against the Maya peoples in Guatemala has left a permanent scar on the psyche of the country. There is little trust and as little interaction as possible between the indigenous population and Ladinos, or non-Maya, within communities. The Maya people are so accustomed to being denied the same access to care as others within their own country that the fear of lesser care, accompanied by a lack of cultural understanding on the part of medical professionals, all leads to the idea of "not being attended" in healthcare settings. If the expected quality of care is not experienced, then the Mayan

patient can understandably become upset and believe they are not receiving care at all. While typical biomedical protocol might be followed, the perception of this protocol can greatly influence its effectiveness within the clinical setting. The idea of "therapeutic expectations" can greatly alter the interactions between cultural ideals, creating conflict where it was not intended and confusion where it was not expected (Berry, 2008).

The complexities continue to increase as non-government organizations and short-term medical trips from western cultures are becoming more common in indigenous settings. In one article, Maya Roberts analyzes the effects of short-term mission trips to Guatemala, where volunteers with no medical training distribute any and all drugs they have brought with them in a one-day clinic. The complications that arise from such a situation are numerous and overlapping. Giving unnecessary medications to individuals, confusing the indigenous population's perception of certain medications, and creating a situation in which all established medical systems in place could be bypassed are all possible consequences of such situations. The real tragedy of the situation is that there is no accountability to the people that these short-term volunteers come to serve, as they leave the country within one to two weeks, never to return. This lack of accountability, without any real regulation or control placed on such programs, can wreak havoc in the small Mayan communities across the country. Not only do the Maya no longer feel the need to work within the

established medical systems in place because of the access to free medications, but the Maya also become dependent upon such programs to maintain certain levels of medicine and medical intervention within their everyday lives. Dependencies on such things as vitamins, even vitamins that do not necessarily need to be supplemented past their normal diet, can cause economic trouble with priorities shifting from food purchasing to medication purchasing (Roberts, 2006). Such dependencies are amplified problems within the community by the lack of pharmaceutical regulation and training within the country. In a study performed by Kroeger et al., it was demonstrated that many pharmacists do not ask the questions that pharmacists are trained to ask; such as what other medications a patient is taking, or even require a physician's prescription for many drugs. Many of the Maya patients are purchasing such medicines as anti-parasite medication in large quantities and using it in larger doses than required rather than attending regular check-ups with physicians. Even when extremely ill, many patients are seeking the advice of the untrained pharmacist, who does not charge for a consultation, over paying to consult a physician (Kroeger, 2001).

The sector of small non-governmental organizations (NGOs) is also rising within Guatemala today. A lot of the problems associated with short-term clinics and programs can be seen in this sector, as well. The indigenous people will go to such NGOs rather than government institutions, creating a lack of communication between the needs of the people and those within the

government who work to meet those needs and the needs of public health across the country (Maupin, 2009). NGOs are dependent upon the financial assistance of others, normally contributions from individuals in the United States and other developed countries. When funding is lost, the same transient nature of volunteer clinics occurs, leaving the local population in a rather desperate situation. With most of the Maya people making minimum wage or less, the NGOs and volunteer clinics are the only way they can afford medications and medical care while not sacrificing other needs, such as food and shelter. When NGOs leave a region, their absence can mean creating more dire health circumstances than those that originally existed (Rohloff, 2011). However, the government programs that would take its place are not necessarily culturally relevant or stable either, as they depend on the aid of other nations and the reelection of those who direct them.

The changing missions of NGOs also affect the region, as certain types of care are available at one time and then are traded for other areas of concern deemed closer to what those who contribute financially deem as most pressing in the region. The confusion created by the need to work with several NGOs as well as public and private clinics in order to receive full care for life can be partly responsible for the Maya hesitance to participate in modern medical practices. The bureaucracy involved in obtaining the proper care, at the properly specialized clinic, designated for certain language

groups and certain villages can create a lot of the fear and misunderstanding that is becoming typical of Mayan populations.

The Maya themselves are working towards reform in the process of healthcare in the country. When conflict arose in the country in the 1970s and 1980s, resulting in a large amount of Mayan deaths, NGOs were forced to close their doors for a time. With government-sanctioned ethnocide resulting in over 200,000 deaths, 83% of which were Maya, the general distrust of the Maya towards the government has remained a strong barrier to any type of effective health care reform being put into place. The Maya were left in a crisis that has created a lasting effect on the overall health of the population. The Maya people worked in movements for the 1996 Peace Accords to include the designation of Guatemala as a multiethnic, multilingual country. Currently, the government of Guatemala is using the Peace Accords and other means to create contracts with NGOs to bring health care reform to the nation (Maupin, 2009).

The Maya are still working towards a better health care system within their communities, citing disease prevention and poverty as the main issues that public health efforts should be focused on (Green, 2009). However, as the distrust of the government remains and the bureaucracy of NGOs become more complex, the overall level of health within indigenous populations will continue to decline. With such issues as the rise of chronic diseases, increasing levels of poverty, prevailing discrimination, and little government

regulation of distribution of medication, such a decline can be expected to persist. Only large-scale health care reform, on top of training of health care professionals in cultural competency, can change the pattern of health.

One group of Maya that have had very little healthcare research preformed within their culture is the K'iche Maya. This group, located in the highlands of Guatemala, is rather isolated but is the largest group within the Maya. Named for the language that they speak, the K'iche have a rich cultural tradition of festivals, clothing, food, and language. However, even in this remote group, the problems of the national health care system have disrupted their everyday lives. Access to clean water is scarce and infection and disease abound. Poverty is almost universal within the group, and they have little representation within the larger community of Guatemala. It is this group of people that are discussed in the following pages; their perceptions of the health care system that has been put in place around their culture, asking them to conform to a standardized system that has little relevance to their society, and what they deem as mot important within the idea of public health. Because of the lack of information on the K'iche, this research will hopefully help in the movement towards cultural salience of health care in the community.

CHAPTER TWO

Methods and Materials

In order to understand the complexities involved in the medical system in the municipality of Momostenango, located in the Totonicapán department of Guatemala, and how it is related to the national health care system, our research group conducted interviews with two local doctors, a nurse, a pharmacist, and a Mayan priest and his wife, for a total of five interviews spanning the health care system's impact in the village.

The interviews were all conducted in person, in Spanish, and recorded for later translation. One of my research partners, Kelli Bassett, and I performed all translations, throughout the following week. Interviews were conducted in Spanish in order to allow those being interviewed to express their thoughts in their native language. Interviews were conducted under the guidance of Dr. Garrett Cook, professor in the Anthropology Department of Baylor University, and were conducted during the month of July of 2013 as a part of a field school conducted by the Anthropology Department of Baylor University. Throughout this body of work, all interview participants are referred to by use of pseudonyms, in order to protect the privacy of these individuals and to respect their candidacy and generosity with the research team. It should be noted that the views expressed are the opinions of those

we interviewed, and within the time constraints of the study, could not be verified statistically or by a larger sample of the population. However, the impact of these opinions is still relevant within the culture, as it is that of the healthcare professionals within the region, and thus has a large impact on the town itself.

My group and I sought to ask questions about not only the stability, or lack thereof, of the medical system set in place in Momostenango, but also about public and private perception of these practices and programs within the community. In order for a healthcare system's impact on a community to be properly evaluated, it is necessary to gain both ethnographic and academic research sources. With both of these goals in mind, our interview questions were shaped to address both of these areas. Our questions were also shaped to the individual's experiences within the health care system. The doctors and pharmacist were asked about procedures and statistical information, while the Mayan priest and his wife were asked questions pointed toward their personal experience with and perception of the health care system.

All of the participants were chosen because of their ties to Dr. Garrett Cook's past research in the area, or because they were recommended to us by others in the village as a source of knowledge. The doctors, Dr. Perez, a pediatrician and obstetrician, and Dr. Martinez, a general practitioner, were interviewed at their respective offices within the town. The pharmacist,

Callina was interviewed at the Farmacía Santa Ana where she is employed. The Mayan priest and his wife, Salvador and Angelina were interviewed at their home on the edge of town. The nurse, Alejandra was interviewed at the Mayan priest's home, as she is the sister of Salvador. Her interview was not recorded or transcribed, as she preferred to give the paperwork that the organization she is employed by provides to our research group. Alejandra works for the Asociación de Agricultores para el Desarrollo "Rachoquel," in conjunction with the political party Unidad Nacional de Esperanza, working in clinics and going to homes in order to vaccinate children and to follow the vaccine regimen deemed necessary by the government of Guatemala. The goal of using these locations was to allow the interviewee access to whatever materials and information they deemed relevant to the questions asked of them. As such, while at the home of Salvador and Angelina, the research group was able to learn about many of the traditional medicinal plants used by the family and the K'iche Maya within the region. Thus, while studying the formalized health care system in the region, we were also able to glean some of the folk medicine used, as well. Many of the interviewees and their families discussed the combination of folk medicine with modern medicine prescribed by doctors. While the effects of this combination would be very interesting to study, that is out of the scope of this paper. However, it should be noted that such a relationship does exist, and some of these plants are cataloged subsequently. With each plant, the Spanish or K'iche name was

given, depending on the word the women in Salvador's family knew, and the medicinal purpose and preparation techniques were given when known. Because many of these plants have been used for many generations by the K'iche Maya people, many of the plants are known to have medicinal properties, but the women in the family were either unaware of some of their uses or how to prepare them. The women knew only that the older members of their families used the plants in their early childhood. The oral tradition of these plants has been slowly losing pieces as more of the K'iche people prefer to use modern medicine and clinics rather than the folk medicine of their ancestors.

As stated earlier, all of the interviews were conducted through relationships with others within Momostenango. On the first day of our stay in Momostenango, the research group was invited to Salvador's family house to learn what our birthdays would be within the Mayan calendar and to subsequently offer up burnt sweets and flowers in fire to bless the research experience and our time in the village. Salvador and Angelina are both currently working with a group of people to bring about the restoration of the traditional Mayan ways of ceremony and culture. He performs such ritual blessings as a courtesy to Dr. Garrett Cook's students in the hope that such efforts will aid the program, which he hopes to turn into a successful revitalization movement. As it turned out, the day of the ceremony was the day of my Mayan birthday, or Kamey. Accompanying this designation was a

description of what this day meant, a day of prosperity and giving thanks to ancestors for future good. Because of this coincidence, I was asked to help Salvador throughout the ceremony and to begin some of the proceedings. This also meant I was splashed with rosemary and flower-water a second time during the prayer. This coincidence proved to be most helpful as I began to have several conversations with Salvador and Angelina before and after the ceremony. Through the building of this relationship, I was able to ascertain the medical dilemma the family currently faced, as well as ask about potential interviews within the village. Salvador's family knew of three clinics within the village, and I was able to conduct the two interviews stated above. It was also through this relationship and growing friendship that I learned of the traditional medicinal plant uses and that Salvador's sister, Alejandra, was employed as a nurse. Within such anthropological fieldwork, connections to people are of the utmost importance in gaining the trust of those being interviewed. It was through the connections of Salvador's family that these interviews were made possible. Our relationship with the pharmacy, by frequenting it for stomach medicine and acetaminophen, also allowed for the interview with our pharmacist friend. In a village the size of Momostenango, such connections can be the crux of ethnographic fieldwork.

Questions were asked for both specific answers and general feelings about health care issues, such as what kinds of healthcare are needed, what are the illnesses with the most frequent incidences in the area, what can be

done to improve these illnesses, and other objective and subjective questions. These questions were aimed at gaining a general knowledge about the region's health care system and the community's perception of it, rather than purely quantifiable information to be tested. The goal was to understand the culture behind health care in the area. Our group thought that if the cultural perceptions of health care could be discussed, then this could be used to gather information for possible later studies in how to improve the health care in the area, as a part of an applied anthropology project. While our research group may not be able to address these issues within the scope of our research, the research itself might be used as a part of future research and applications in Momostenango. If the cultural motivations behind health care can be determined, then the practical application of those motivations will be much more efficient and culturally inclusive. This is opposite of the applying the colonial technique of the past of standardized answers to unique problems. Thus were the goals of our research in each interview situation. A transcript of these interviews, translated into English, can be found in the appendix.

CHAPTER THREE

Discussion and Findings

The results of the interview were very interesting. When discussing such things as the biggest problems in healthcare, many of the answers were similar. The doctors both agree that malnutrition and infections, specifically parasitic infections, were the most prevalent issues within the region and in Guatemala as a whole. While malnutrition was not defined by either doctor, it can be seen that such malnutrition means that the typical diet of people in the region is lacking in the necessary nutrients in a balanced diet. The main starch staple crops are eaten a lot, in the forms of tortillas and rice, and fried chicken is becoming a cultural phenomenon. In the process of the demonstration effect, the people in the region are beginning to replicate the diets of western societies. Throughout the market place, fried chicken stands with French fries were by far the most popular food stands, and the new pizza shop in the town was crowded with teens from the surrounding neighborhoods. For those on the field school with stomachs not accustomed to local foods, these places were blessings. However, with the young people of the town supplementing their native diets of starch and little nutrients with such food as fried chicken and pizza, malnutrition can be seen as an obvious conclusion. It should be noted, however, that only those young people who could afford such meals, those in the affluent families in the

town, were seen in these shops and stands. For the majority of young people, such a diet is much above their economic capabilities, meaning that even more of their diet is made up of two or three staple crops with little nutrients. The family atmosphere is very apparent in the town, with children and their parents working together in stands in the market and stores. That is to say, it is not as if there is neglect in the way that the young people are raised up, however, education levels being low for the parental generation in the town, mixed with a climate that supports only certain crops, and the economic conditions within Guatemala as a whole forcing the growth of cash crops in the region all appear to be factors that influence the poor nutritional status in the town. Dr. Perez states that malnutrition is basically "the entire problem of the country," as it stems from many socioeconomic issues and it also is a springboard from which the majority of other illnesses in the country stem from.

Other such health issues are infections, which are also extremely prevalent in the region. Dr. Perez says that malnutrition "leads to infections, both pulmonary and gastric, and these are very bad things. These are the things that the population seeks consultations for the most." Many wounds become infected because of the lack of clean drinking and bathing water in the town. Angelina, who has had an abscess in her left breast for the past three years, has had three biopsies performed on the breast. Each consecutive biopsy site has become infected, making the situation with the

abscess even more dangerous. While doctors do not believe that the abscess is malignant, they are afraid of the infection and abscess creating a bigger problem by spreading to her lungs and other areas of her body. This is just one example of infection that could possibly be combatted by clean bathing water. As it is, the water with which Angelina bathes is from the local water source, which is known to be unfiltered and a source of parasites. Pharamacist Callina also stated the products most sold at the Farmacía Santa Ana were anti-parasitic medicines, followed by vitamins and antibiotics. These seems to support the theory of malnutrition and infection being the two biggest instances of illness in Momostenango, as the Farmacía Santa Ana is one of the biggest and most central pharmacies in the town.

Another aspect of the cultural perception of the health care system was addressed in our questions about vaccinations. Salvador and Angelina believe that vaccinations are a vital part of the health of their children. However, they stated that there is much hesitance for many parents to take their children to the clinics because of the short-term side effects that certain vaccinations may have on the children. The general ill feeling and apathy that accompanies many of the major vaccinations for the region scare many parents away, especially because the long-term health benefits cannot be seen at the time of vaccination. Dr. Martinez stated that there are government programs in place for children up to five years of age to receive a free regimen of the recommended vaccinations. However, because many

people do not use the program, when they are incorporated into private clinics, such as his own, they have to work the vaccinations into whatever other treatment the child was brought in to receive. While this is much more expensive for the parent, Dr. Martinez says that there are more options available to the parent in the private health sector than the public as far as the types of vaccinations and their administration. Nurse Alejandra, as a part of her job, supplies families with the necessary paperwork to complete their children's vaccination records, along with helpful tips for when each shot for children under age five are given.

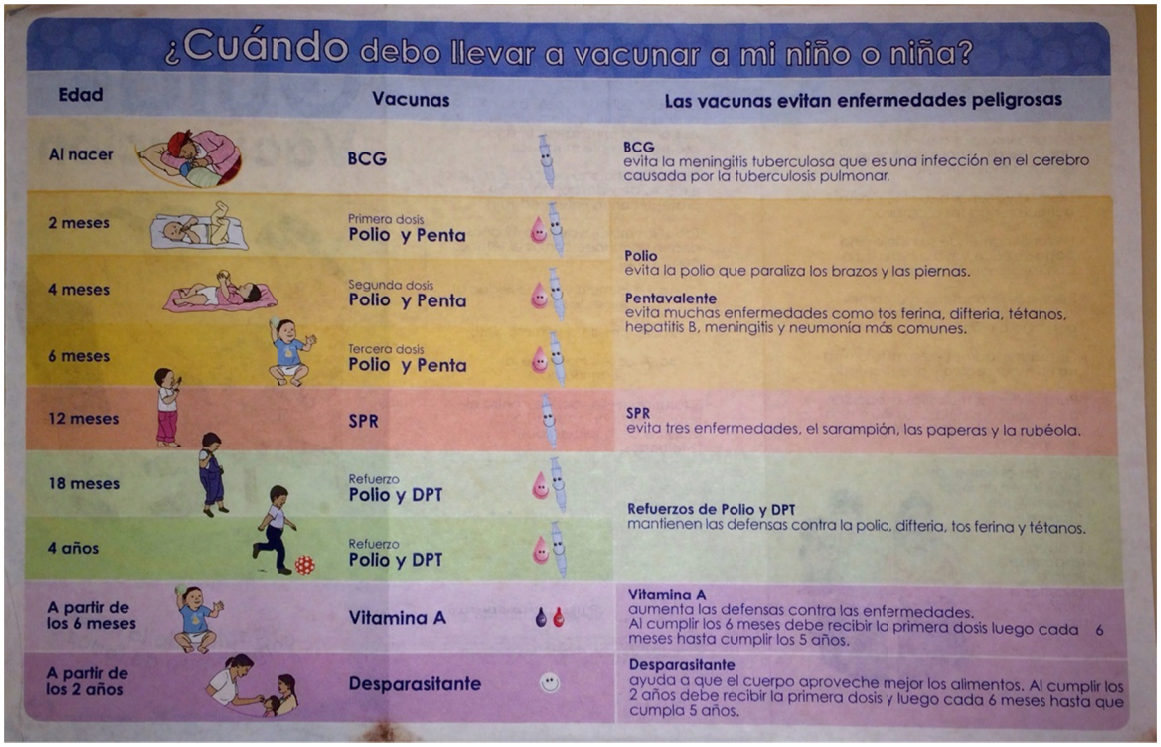

Figure 1:Pamphlet used by the Asociación de Agricultores para el Desarrollo "Rachoquel" for distribution to families in the Momostenango municipality.

These pamphlets, like that in Figure 1, are meant to promote the vaccination of all children under the age of five for the six different illnesses that affect the population of Guatemala the most and are deemed necessary by the Guatemalan government. These vaccinations include the Bacillus Calmette-Guétin vaccination, or BCG, which combats tuberculosis. This is to be given to children at the time of birth. This assumes that children are born in a place where the vaccination is readily available. The next vaccinations at two months, four months and six months are Polio and Pentavalent. Pentavalent is actually a combination of five vaccinations in one inoculation, combatting diphtheria, tetanus, whooping cough, hepatitis B and Haemophilus influenza type B (*Immunization* UNICEF). At twelve months, the MMR vaccine is given, abbreviated SPR in Spanish, to prevent measles, mumps, and rubella (Kaneshiro, 2013). At eighteen months and again at four years, Polio boosters are to be given, and well as the DPT vaccine, preventing diphtheria, pertussis, and tetanus (*Diphtheria*, 2013). It is also recommended that these vaccinations be supplemented with doses of Vitamin A every six months and an anti-parasitic drug every two years. The pamphlets are geared specifically toward indigenous Maya populations, with illustrations of families dressed in traditional Mayan clothing and a vaccine regimen that addresses the health issues that most of those populations will encounter. While these vaccines are rather strongly recommended, Salvador, Angelina, and both doctors expressed the hesitance of the general K'iche population specifically to take

their children to clinics in order to receive the recommended regimen. The fear that accompanies clinic visits is expressed in the idea that children who have gone to the clinic in the past have died. The stigma associated with the clinic as a place of illness and death does not help to increase the seeking of healthcare by the Maya people.

Dr. Perez spoke of this hesitance frequently, as he stressed the fact that many K'iche people prefer to rely on traditional and folk medical techniques. He estimated that "only 5 out of 2,000 people go to the doctor." In a municipality of approximately 100,000 people, that means that only .25% of the population routinely seeks medical help in the region, if Dr. Perez's statistical assumptions are correct. Dr. Perez believes that a compromise between the modern health care systems in Guatemala with the traditional practices of the Maya would be a great start to the resolving of this problem. Explaining what these vaccinations mean, in the cultural context of the Maya, would help to increase the number of children vaccinated, coming in to clinics for regular check-ups, and hopefully would inspire mothers to have some of their prenatal care taken to the clinics, as well. Dr. Perez also stated that by somehow combining the powers of the public and private health care systems in the region, the chances of changing the current patterns of health in disease would increase even more.

Dr. Perez, as a pediatrician and obstetrician, was very concerned about the very large proportion of the population of pregnant females who

received no prenatal care in clinics and relied solely on midwives during childbirth. The region's many different social groups amplify the problem, each maintaining their own beliefs about how traditional medicine should be used during pregnancy and delivery. Midwives lack formal training much of the time, and Dr. Perez says they don't have the ability to help pregnant mothers during delivery if a major problem arises. If midwives suggested a simple ultrasound, with one prenatal and one postnatal check-up to the mothers that they care for, many of these complications would be discovered. Dr. Perez believes that working with midwives, having the midwife be in control of the delivery while at a clinic, doctors could intervene if and when major problems arise during childbirth. By allowing midwives to have input at the clinic and to work with doctors, perhaps more of the Maya would feel comfortable delivering with available modern medical techniques available. Working with traditional medicines and remedies would also help the process. In the words of Dr. Perez, "A lot of the time you need to be very careful when using natural medicines, but you also need to be careful when you give a prescription," meaning that using natural medicines can be just as helpful as modern pharmaceutical medicines, and both should be used with caution at all times.

Angelina and Salvador's sisters were very willing to share what knowledge they had of plant uses in traditional medicinal practices of the K'iche Maya people that had been passed down to them from their ancestors.

While waiting for Nurse Alejandra to arrive for her interview, the women were chatting with our research group and were kind enough to share their limited knowledge of what they described as once being a large repertoire of natural medicines used since the beginning of the K'iche culture. All of the plants could be found either in the field in front of Salvador's home or within the confines of their kitchen.

Figure 2:Photos from left to right, top to bottom: *Anís, Durazno, Ojas de Eucalypto, Semillas de Eucalypto, Grama, Manzanilla, Hierba Moro, Hierba Buena,* and *Pericón*. Photographs by Tyler Hale, senior, Anthropology.

As they described each plant, pictured above in Figure 2, they gave a description of its uses and its preparations. While some of the names were only known in K'iche, the nine pictured above were known in Spanish, as well, and could be translated for their English names. *Anís*, or aniseseed, is

used for colic in babies and for stomach pains. A woman bathes in the leaves of the *durazno*, or peach, tree in the days leading up to labor in order to insure a safe delivery. *Ojas de euclaypto*, or eucalyptus leaves, are used to combat cold and flu symptoms, such as body aches. *Semillas de eucalypto*, or eucalyptus seeds, are used to clear sinuses. *Grama*, or Bermuda grass, is used to alleviate kidney problems, such as infection and kidney stones. *Manzanilla*, or chamomile, is used to calm the nerves. *Hierba moro*, or black nightshade, is used to combat anemia. *Hierba buena* and *pericón*, or mint and St. John's wort respectively, are both used against stomach pains and nausea. Other than the leaves of the peach tree, all the other plants were crushed and boiled in water to create a tea. The abilities of these natural medicines are astounding, as I was able to witness first-hand. After drinking one cup of té de pericón, or St. John's wort tea, the symptoms of nausea and stomach pain that I had experienced for two days prior were gone within the hour. It is clear that all of the women who described these plants to our research group, and who were kind enough to share some samples of these plants with us, trusted fully in the power of these traditional medicines to cure all sorts of ailments. While they described these plants to our group, they discovered my rather irrational fear of birds as they released three grown turkeys, five chickens, and several baby chicks in the yard to be fed. After laughing for quite some time at the way in which I cringed and backed myself into a wall in a protective stance, they kindly offered the services of Salvador and a

healing bath of rose petals to cure myself of this fear. All of the women were much more willing to discuss such measures as this than their experiences within the modern medical realm of clinics and pharmaceutical drugs. Furthermore, as women, they trusted their bodies, especially during pregnancy, much more comfortably to the hands of their family rather than Dr. Perez and others at clinics in the village.

Within the issue of infant mortality, birth spacing and planning, and subsequent health of the mother and child is sex education. Dr. Perez stated that there is a lack of sex education in the region, as parents are unwilling to address the issue and are often uneducated themselves. Because of this, the amount of teenage pregnancies is increasing. Along with teenage mothers being unaware of the health care that should be given to their children, they are often ostracized and even disowned by their families because of the additional cost to the family that a new child would bring. While they are unaware of how to take of their child, chronic malnutrition can take hold in both mother and child, leading to susceptibility to a myriad of other diseases.

The root of many of these problems is a lack of communication between modern medicine and traditional healing methods, and the notions of curative medicine rather than preventative medicine, along with cultural understanding of proper and improper behaviors. Because of the focus on illness that can be seen, the symptoms rather than the actual pathology of the illness, the Maya people tend to discount the ideas of preventative medicine.

If an illness cannot be seen, takes time to manifest, or is not represented in physical symptoms, then the Maya believe there is nothing yet to be fixed. Dr. Perez stresses to his patients the need for vaccinations, ultrasounds and regular check-ups in order to stave off illness, but the concept does not exactly translate culturally. When the diagnosis of autism was brought up, Dr. Perez said it was rare, but he had seen two cases in the municipality. It is difficult for the parents, who have an understanding of illness as something physical and can be fixed in a certain manner, to see autism as something that does not necessarily manifest itself physically and requires therapy rather than medicine. When asked, Salvador and Angelina said they had never heard of autism. It is likely that there is little to no awareness of such types of illnesses within the Maya population, at least they way that modern medicine would define them.

Prevention in general is what both Dr. Perez and Dr. Martinez said would be the one concept that could change the entire direction of health care in the region. If its advantages could somehow be translated culturally to the K'iche Maya peoples, then many diseases and illnesses could be avoided in the region and in Guatemala as a whole. However, even if such an understanding evolved, with Maya traditional methods and modern medical professionals working together, there would still be obstacles. Momostenango is a municipality of approximately 100,000 people with no hospital. Without the ability to perform emergency medical procedures and

any form of major surgery, then mortality rates in the region will continue to rise as the population grows. This is coupled with the fact that the doctors seem unable to receive all of the medication they deem necessary to promote health in the region, and Salvador and Angelina both spoke of the population not having access to the medicine that larger metropolitan areas have access to. They spoke of vaccinations reaching the town expired or in insufficient doses, as well as being simply the wrong type of medication that doctors and clinics ordered. This has promoted the distrust of the government and its health care programs, which creates the cycle of lack of clinic use, lack of health education, and increasing incidences of infectious and chronic diseases in the population. Overall, the system seems to be in a positive-feedback loop of promoting distrust and lowering efficiency in its cultural context.

CHAPTER FOUR

Conclusions

Through the review of literature and the responses of the K'iche Maya people and their health care professionals in Momostenango, it can be seen that there is a rather long way to go towards health care reform throughout the entire country of Guatemala. The perception of a general lack of standard health care and lack of access to improving this situation can be seen throughout each interview and component of literature.

Such interventions as the opening of a hospital within the community and increasing public health education measures would serve to better the general level of public health within the community. Other measures that go beyond the specific scope of health care would be increased access to clean water not only for drinking and cooking, but also for bathing, and some type of economic reform within the community to decrease the large level of poverty that pervades the culture. Once such basic issues as increased access to healthy amounts of nutrition and shelter are met, then the possibility of interacting at a greater level within the health care system can be achieved.

The scope of this research was limited in size and depth because of constraints on time and a lack of health care resources within the small village of Momostenango. However, this research can serve as a starting

point for future research in the area as to specific diseases and infections within the community and how they would work within the system. Areas that should be explored within future works could include the combination of social and economic pressures and the effect that they have on health care efficiency, especially within rural settings. What was never mentioned in any of the interviews was discrimination against the Maya people as a reason for distrust and fear of public health and government programs. The reason for this lack of explanation may simply lay in the fact that all participants were newly acquainted with our research group. However, it appears to be vital to the process of health care reform that past violence and grievances play a large part. Overall, the perception of health care cannot be isolated from the effects of other areas of life and the overall history of a country. Adding in government and international relations further complicates the matter, along with the increasing migration of indigenous populations to urban centers and even to other countries with greater economic prosperity. However, long-term ethnographic research can help to determine how all of these situations affect the K'iche culture on a long-term basis.

Other areas of research may also lead to the practical application of programs and reform within the community. While this is out of the scope of anthropological ethnographic fieldwork, it may be possible to create reform within the community while maintaining the cultural integrity of the K'iche

by first understanding the cultural conceptions of the world and the interactions and behaviors that these people perform.

The K'iche people are an extremely kind and generous group of people who were willing to share parts of their lives with our research group in order to explain their struggles and hopes. It is my hope that they someday can gain the reform and change within their health care community that they strongly desire.

APPENDIX

Transcript of Interviews

Interview with Salvador and Angelina

Date: 6-25-13

Salvador: Natural medicine is used a lot and is very important in the centers and barreos of Momostenango. There is a lot of hepatitis A right now in the town. Barreo Santa Carolina and Santa Anna are the two barreos most affected by hepatitis A. The kids are most affected by hepatitis A. The cause is dirty water, specifically water used by both people and animals. In Santa Anna there are more than 20 cases of hepatitis A. There are twenty people in the hospital from Santa Carolina. I heard so on the news. There is a vaccination for hepatitis A available. The doctors come door to door to give the vaccine, but people either do not answer or sic their dogs on them. People do not answer the door because people do not understand the disease or that the weather changing causes the illnesses. The government gives a lot of medicine to the clinics, but the clinics do not give it out until the medicine expires. I think it would be better if the government would give children the vaccines at the schools without the parents present to interfere. The law requires the doctors to go door to door because parental consent is needed. The reason parents resist having their kids vaccinated is due to the short term affects of vaccination such as stomach pain, head pain, and not wanting to walk.

Researcher: Have you had any problems with your own kids having short-term effects?

Salvador: We do not wait for the doctors to come to our door. We bring our children to the medical center. We follow the doctor's vaccination schedule and do not alter the vaccination regimen. When they get vaccinations there is sometimes a mark or some swelling or pain, but it goes away. We have immunization cards. My sister works for UNE [Unidad Nacional de Esperanza]. UNE works in areas close and far from Momostenango in order to figure out what the biggest health problems are in these areas. The biggest problem is access to good medicine. There is plenty of medicine here, but not the right people have access to it, or most people do not know how to ask for it. There are a lot of sicknesses to do with lungs, but there is not a lot we can do about it. There are people who work here, but they cannot do a lot about the illnesses. They work for pregnant ladies, children, and the elderly. There are a lot of people who have lung illnesses. The guy we used to buy candles from died from a lung disease. His name was ---------. It wasn't because he smoked. It was the smoke from the candles and offerings that killed him. The vaccines for hepatitis A and B help for lung problems. There are a lot of arthritis problems in Momos. A lot of people who have arthritis use natural medicine. They use Salvia Santa and they go to the hot baths. They use eucalyptus as well. They use peach tree leaves and chilga. They make a pulp out of it to rub on their feet and other joints that are hurting them. There is

something they use a lot now at the Health Center. Because there are a lot of stomach pains and subsequent vomiting because of the food that is not cooked well. There are some people who cook well and there are some people who don't. They use anis because the economy is bad and it is cheap. They make a tea out of it, add hot water and a little bit of sugar and it helps with stomach pain. You will not have any diarrhea or stomach indigestion. They also use pericón and anis de chu-chu for stomach pains. They add cinnamon and romero to the tea with anis de chu-chu. In Momos there is also a lot of colon illnesses. The Catholic Church and doctors in Momos know of natural medicine as well: celery, carrots, and garlic. They make a broth out of these ingredients. After you put it in a bowl and drink it, your colon becomes cured of inflammation.

Researcher: Have you heard of autism?

Salvador: Autism? No, I have never heard of that.

Salvador: I am going to start talking about the case of my wife. She has a sickness in her breast. We went to the doctor. The doctor first gave her a lot of medicine then later said it would be best if she got a mastectomy. [Showed Dr. Garrett Cook the letter from the doctor].

Cook: The paper says that she has an infection now. This is a certificate from a surgeon here in Momos. It is signed by ----------. There is an infection in her left breast. It also recommends that she be evaluated for a mastectomy, but that she is not required to have one right now. The date this was signed is

the 17th of June, 2013. Right now they are recommending other medicines as well.

Salvador: She is taking the medicine, but it was very expensive. So now she is taking another medicine and we are waiting to see if we want to do the operation.

Researcher: How much does the operation cost?

Salvador: 4,000 Q [quetzales]. The first time the doctor saw her it was 700Q.

Cook: It is 700Q for every doctor's visit.

Angelina: [She shows us her infected incisions on her breasts.] It has been two years since we have started seeing doctors. It has been three years since it began.

Salvador: We've been to the same doctor for the last month.

Cook: They went to the doctor and he prescribed many treatments, but they went for the cheaper option.

Salvador: We've tried treatments, but they weren't effective. We went to the doctor and he said the treatments we've tried were not working. It is a very serious condition now.

Cook: It says on the paper it is not a cancer, but an infection or abscess. They are afraid whatever it is might spread to her lungs. The medicine is obviously not working.

Salvador: It was supposed to take two years for it to be cured. There are 3 types of medicines. One is an injection, the second is two types of pills, and a

natural medicine called cifuela. It is what you put into tamales. She could only drink water. She could not drink coffee, tea, or chile.

Cook: She had five different treatments.

Salvador: At first it got better, but they had to cut it to release the trapped puss. We had to go back to the doctor for treatment. It cost 700 Q to go back to the doctor. Aprofon is the name of the current medicine she takes. They thought it would work really well and at first it was, but as you can tell it is no longer working anymore. But we cannot get another medicine because it is too expensive. At the end of one year, at the end of two years we would wait for it to get better and at first it would but it never really did. Now she has a very bad case. She cannot take some medications because of the heart medicine she is on after the bus accident. It has been six years since the bus accident.

Cook: She has had heart problems for six years and this infection for two years.

Salvador: My wife and baby were supposed to die during that accident, but didn't.

Cook: Ok, so its been six years since the accident, she has had this infection for two years, and she has been to the same doctor for each of her five treatments and each time she has gotten a little bit better, but she has never been cured.

Angelina: This last month's visit is when the doctor suggested a mastectomy

and that should cure it, but I am not so sure it will.

Cook: Ok, but here it says they are not sure about the medicine or whether or not she needs a mastectomy.

Angelina: It may be cured with a mastectomy.

Cook: Yes, but here it says it is an infection, not cancer so that is much better because cancer is much more serious.

Angelina: Yes, but an abscess can produce cancer.

Salvador: We are going to do an ultrasound to see how things are. The ultrasound is to see if it is an abscess or cancer.

Cook: So is it 700Q for just the visit and the medicine costs more?

Angelina: No, the 700Q is for everything.

Cook: So it has been 3500Q you have spent in the last two years?

Angelina: The total medical bills as of now have been 15,000Q.

Salvador: 700Q covers a visit, ultrasound, and the medicine.

Cook: Ok she is taking another antibiotic, but I have never heard of it. What other kinds of customs has she done to help it?

Angelina: At first I was taking natural medicines, then I took a lot of pills.

Cook: What is your doctor like?

Angelina: He is very good and well educated. And he works in the medical center. He is a specialist.

Salvador: He is a lot more expensive. He is the director of the Health Center. The doctor is from Momos.

Cook: Where is the clinic?

Salvador: I don't know the address off-hand, but it can be found online.

Angelina: I have to go to that doctor for my specific illness. There was a shot I could have taken for my infection, but it was 600Q and just too expensive. People die here because they cannot afford healthcare and treatments. There was an outbreak of hepatitis and people died because they couldn't afford the vaccines.

Researcher: Do they provide vaccines only for children, but not adults?

Angelina: No the hepatitis vaccine is not provided for either children or adults. -------- are vaccines covered by the government. After vaccines a lot less people die now.

Interview with Dr. Martinez

Date: 6-27-13

Researcher: What do you think of the healthcare system in Guatemala?

Martinez: So you have primary, secondary, and tertiary grouping systems. Primary patients come and I can give a diagnosis and generally resolve it, so simple illnesses. The secondary patients are beyond what I can resolve and must be sent to the hospital. The public health systems are more complete because they are more incorporated and more doctors can consult each other. The system needs to be more equal, more professional, more efficient, and more affordable.

Researcher: What is the most common problem among patients in Momos?

Martinez: The most common problems are malnutrition and infection. There are illnesses here that are solely regional since people here work in hard labor conditions. There are also a lot of insects and mosquitoes that can cause illnesses and infections. But that problem is common in Guatemala as a whole, not really specific to Momos. The most important thing is prevention.

Researcher: Are there a lot of people here who get their children vaccinated?

Martinez: There is a vaccination program where kids up to five years old get certain vaccines. But some kids do not get the vaccines they need at the appropriate times, so when those children come into private clinics we have to incorporate those missed vaccines they need into their regimen. There is a different between the vaccines available to kids through the private and public systems.

Researcher: What is the healthcare procedure for epidemics or outbreaks?

Martinez: In cases of hepatitis both private and public institutions promote prevention and treatment.

Researcher: Is this clinic private or public?

Martinez: Its private

Researcher: How many patients do you get roughly in one day?

Martinez: Its relative. It varies.

Researcher: What can the government do to improve the healthcare system?

Martinez: The government should have a program that financially supports a

woman depending on the number of kids that she has. There should also be a program to support people who cannot afford healthcare in order to provide all the medical services a person needs.

Interview with Pharmacist Callina

Date: 6-27-13

Researcher: What products do you use the most?

Callina: Anti-parasitic medicine, vitamins, and antibiotics.

Researcher: What are the most serious problems?

Callina: Malnutrition, then pulmonary problems, and last parasitic problems.

Researcher: How much do products cost?

Callina: We have both expensive and non-expensive things. The products from USA and Central America are more expensive, while products from India are the least expensive. For example, antibiotics can cost up to 390Q [quetzales]. The most expensive antibiotics from India are 60Q.

Researchers: Can most people afford medicine for their illnesses?

Callina: Even with the cheaper drugs from India, people cannot afford them. So people stock up on the absolute cheapest drugs that cost around 3Q and hope that by taking more medicine they will be cured.

Interview with Dr. Perez

Date: 6- 27-13

Researcher: What do you think about the public health system overall in Guatemala?

Perez: There are many perspectives and viewpoints on this topic, but in reality the health system is very bad. For public health in general, the programs appear well, but the organization of the programs is bad because sometimes the medicines for the programs don't arrive where they are supposed to go. In this manner, the health of the population doesn't get better. Most of the time the curative medicine is given rather than the preventative medicine. Much of the problems in Guatemala are about prevention and not about curating. They always talk about cures, cures, cures, but that system is bad. There also isn't a system that educates and informs them to be cautious. A lot of people have to see that they can go to private doctors when public healthcare fails. They need to start visiting private doctors, even though it is more expensive, because the public health system is dysfunctional. The public health system is so dependent on the government that sometimes it only functions for political favors. The government programs are not functional. For example, the president changes every couple of years and right now the president is trying to tell people not to go to private doctors, but to use the public health system because that's the best way to give the public attention. In reality, the population is just very

poor, but the doctors don't have what they need to serve the public effectively. Here it's different. I have what I need, I work really hard, and I give help. But most of the time, I'm not able to give exactly what they need to cover their needs in that moment. So the whole system is bad.

Researcher: What's the most prevalent illness in Momostenango?

Perez: It's pretty much the same everywhere. The primary illness is malnutrition. The health center underestimates the number of malnourished people; they can't classify everyone who is malnourished as malnourished. But if you go to private clinics, the number is much higher. The other problems are infections, pulmonary illness, skin problems, and parasites. But the biggest problem is malnutrition. And the biggest problem here and in all of Guatemala is malnutrition because it's chronic malnutrition. That leads to infections, both pulmonary and gastric, and these are very bad things. These are the things that the population seeks consultations for the most.

Perez: And a big part of this is pregnant women because a lot of pregnant women don't consult a doctor, and this is a national problem. They don't have prenatal or postnatal consultations, and this leads to malnourished children. This leads to the national problem of malnutrition, which is basically the entire problem of the country.

Researcher: In your opinion, what is needed in Momostenango to better the health of the population?

Perez: What we need is a compromise between the different types of

healthcare, and not a plan or write-up, but an actual compromise of action between the two. The health center has a lot of programs and specialties, but they don't have influence on the population because there are, more or less, 100,000 inhabitants. Probably only 5 of 2,000 people go to the doctor, but in the medical center there's only one doctor and a few helpers. I think, at the very least, there should be ten doctors in the health center. What we need the most in Momostenango is a hospital; a hospital with all of the specialties. Because the public needs more access to all of the specialties.

Perez: Also, a lot of pregnant women die while giving birth. This is because of the lack of a complete service for pregnant women. It's because of a distrust of the healthcare system and a lack of information about ultrasounds and everything they need during a pregnancy. We need a foundation here to start a hospital because what we have is not sufficient. That would also help the percentage of preventative medicine to increase. Most people just want curative medicine than to learn about the illnesses. A hospital would help the mountain of illnesses in Momostenango. A lot of the correlation between illness and death could have been helped by prevention.

Researcher: Do pregnant women not come to the clinic because they use natural medicine?

Perez: What happens with this is that there are a lot of different beliefs in the villages here and a lot of the time they do not consult doctors. They have a lot more trust in midwives within their communities. But a lot of the time,

midwives have limitations and do not know about pregnancy problems. It would be better if the midwives suggested that women go to hospitals or a clinic when the baby arrives, or at the very least, once or twice during their pregnancy, but many times they just say no. Then the doctors could give them an ultrasound or consultation, but the midwives can't give them that. I think it would be a good idea for the midwives to work with the doctors during consultations for a compromise. A lot of the time you need to be very careful when using natural medicines, but you also need to be careful when you give a prescription. A lot of the times they just tell pregnant women to drink water, but that's not sufficient. A lot of times pregnant women only come in when they're sick and the doctor tries to take control of the pregnancy, which does not work out. Here, the best tactic would be prevention as well, for the sake of their health. Another problem is sex education because it's a very sensitive topic. A lot of times there is not trust between parents and their youth on this topic. They just never talk about it. A lot of times when girls get pregnant, their parents cut them off because they don't have sufficient money to support them and their babies. A lot of times this leads to malnourished babies. Thus, the problem of malnutrition is perpetuated in the population.

Researcher: Is there a problem with vaccinations in Momostenango?

Perez: Sometimes families just come to get vaccines as a curative measure, but this is worse than vaccinations as a preventative measure and not always

do illnesses, such as varicella, show up, but a lot of illnesses with vaccinations are prevalent in the area. But a lot of families are worried about vaccinating their children. But a lot of this time, their children die without the vaccinations. The part of the population that does vaccinate their children often prevents death, but there is a portion of the population that does not vaccinate their children. I think that the government should come up with a program that compromises between the families' beliefs and the vaccination of their children. For example, a lot of vaccinations don't make it to villages, and when they do, there is distrust in the fact that the government sends the vaccinations. So, when they come in for vaccinations there could be information about what the children need to eat, and that compromise is a long way away from being thought of and actualized. In my opinion, the vaccines are efficient and there are plenty of them, but that's not the problem. I believe around 98% of children have had some type of vaccination.

Researcher: Finally, is there a problem with autism here?

Perez: Yes, I've seen this. It's a very small problem, but there is some autism present. The biggest problem is information. The education level of the public is very low, and so the population understands very little about this. Personally, I've seen two cases in the time that I've worked here. It's very hard for the families to accept this diagnosis here. Because you can't see the effects right away, it's hard for them to accept that they need to go to lots of

doctor visits. It's hard to get them to come in because they think that when children come into the clinic they die. They don't understand that there's not a curative medicine for this, but rather a therapy. The issue is really hard for them to understand a disease that they can't see. Probably in this whole area there are many cases but the doctors don't look for it. If it's not an imperative form, then they don't realize its autism. Yes, there are two cases and the families are trying to work with them but it's very difficult. But yes, there are cases here.

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