

**SEARCHING FOR A CURE:
HEALTH CARE BEHAVIOUR AMONG THE Q'EQCHI' MAYA
IN SOUTHERN BELIZE**

A Thesis Submitted to the
College of Graduate and Postdoctoral Studies
In Partial Fulfillment of the Requirements
For the Degree of Master of Arts
In the Department of Archaeology and Anthropology
University of Saskatchewan
Saskatoon

By

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Abstract

This thesis explores the health care behaviour of Q'eqchi' Maya community members living in the Indian Creek village in southern Belize. Using an ethnographic approach based on three months of participation and interviews, this thesis focuses on how Q'eqchi' villagers evaluate the effectiveness of practitioners and interventions, how they make treatment decisions, and their overall patterns of health care behaviour when an episode of sickness arises. It contends that members of this Indigenous community equally value the medical practice of both Q'eqchi' and biomedical practitioners, and that they select between health care alternatives pragmatically, abiding by a cost-effectiveness analysis based on a specific social, cultural, and economic context. By showing how the involvement of local realities is necessary to improve health outcomes, this thesis identifies possible pitfalls of current international and Belizean models of care for Q'eqchi' communities living in Belize, and provides recommendations that must be addressed in future health care research and planning.

Acknowledgements

Writing a thesis is never merely an individual act. Numerous people have made it possible for me to start, continue, and complete this endeavour.

I am particularly grateful to my supervisor, Dr. James Waldram, who introduced me to the many amazing people in Belize and helped fund this work with a Social Science Humanities Research Council Insight grant he was awarded. He pushed me to think harder and more clearly about things, and his continuous mentorship, knowledge, and care have been indispensable throughout.

This work would not have been possible without the support and guidance of those in Belize. I am eternally grateful for Fercia Coc and Pedro Maquin's friendship, knowledge, and dedication. I am honored to have spent time with the Maquin and Coc families, who took care of me as one of their own, and with the other families, all of whom allowed me into their homes and trusted me with personal moments and stories. I also want to thank those who are part of the Maya Healers' Association of Belize, the coordinator, Mr. Victor Cal, and the *iloneleb'* Mr. Augustino Sho, Mr. Manuel Choc, Mr. Francisco Cal, the late Mr. Emilio Kal, and the late Mr. Manuel Baki, who extended their trust and shared their knowledge with me. And to Tomas Caal, I am extremely thankful for his advice, knowledge, and sense of adventure, each which helped shape my ideas during fieldwork.

I am also thankful for the support of numerous people at the University of Saskatchewan, many of whom remain unnamed here. My professor and committee member, Dr. Pamela Downe, has helped me cultivate my curiosity in applied medical anthropology and has sharpened my critical skills. I thank her, my committee member, Dr. Sylvia Abonyi, and my external examiner, Dr. Simon Lambert, for their encouragement and valuable insights. I extend thanks to my professor Dr. Alexander Ervin whose passion for and knowledge about applied anthropology has inspired a cohort of students, including me. My friends and classmates have shaped my thoughts and research ethics, and I am grateful that they made this experience memorable.

I want to extend my gratitude to Krista Murray's invaluable companionship, both personally and academically. Her writing inspired me along the way, and she carefully read numerous drafts of this thesis. Also, to Samar Zora, who provided meaningful feedback throughout the process and

supported me during times of difficulty. I want to express my deepest appreciation to Devika Eifert, who not only helped with extensive edits of every chapter in many of their forms, but also taught me how to face my fears and conquer them. This thesis would not be complete without her.

To my family, I am forever thankful for and indebted to your unconditional support, encouragement, and love.

Dedication

To my grandfather

Nick Ziss

Thank you

For dedicating a lifetime

To helping others

And instilling values

Of compassion, integrity, and grit

That carry us forward

Through life's challenges

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Chapter 1: Introduction

“Equal Health for All” reads the motto beneath the Ministry of Health’s logo. The letters on this strikingly large poster are big enough to read from afar. It is the first and only image that greets me as I enter the international airport in Belize City. Making my way to customs, I notice that only two families are in the domestic line, while the four international lines are overflowing. The walls here are plastered with advertisements specifically geared to tourists. Everyone around me is laughing and exchanging holiday plans, but I feel perplexed. Having spent over a year reading and learning about this country’s inadequate health care, I am wondering why the government is promoting universal health coverage to these, primarily privileged, citizens and vacationers, who are unlikely to make use of the public health care system.

For many years countries in the Global South have been dealing with colonization, neo-colonization, and their consequences. After the Second World War, many nation-states developed multilateral organizations to uphold international relations and to promote collective humanitarian goals. International health became a prime focus. In 1948, the United Nations declared health and well-being a human right. However, as of the 1970s, concerns with global income and health inequities between the Global South and North resurfaced. By 1978, the World Health Organization re-evaluated its programs and adopted the Alma-Ata Declaration, which endorsed the goal to provide “Health for All by 2000” with the intention to eliminate health inequities worldwide. They planned to achieve this through the implementation of publicly funded primary health care, involving a variety of health care providers, including traditional practitioners (World Health Organization 1978a, 14). The World Health Organization also encouraged countries to integrate traditional medical systems into their national health care and drafted policy guidelines to help governments do so (e.g., Bannerman, Burton, and Wen-Chieh 1983; World Health Organization 1978b; 2000; 2013).

Despite Western biomedicine’s broadly accepted authority, often preeminent and exerting dominance over alternative medical systems (Baer, Singer, and Susser 1997), traditional medical systems have endured. Researchers have proposed various reasons why people still use it. These include a longstanding belief in the system (e.g., Freidson 1970; Rivers 2001 [1924]), functional reasons regarding its effectiveness (e.g., Evans-Pritchard 1976 [1937]; Young 1976a, 1979), its accessibility (e.g., Frankenburg 1980; Janzen 1978), and that it offers some treatments biomedicine

cannot (e.g., Good 1994; Kleinman 1980; Leslie 1992). However, the working relationship between traditional and Western medicine varies from one country to another (World Health Organization 2019a).

In Belize, Maya medicine has faced many challenges. Over the years, the combination of external threats by evangelical churches, Christian-based educational curricula, state policies, national cultural processes, and the growing dominance of the English language, have diminished and extinguished Indigenous cultural practices. Nevertheless, Maya populations have shown adaptation and resistance to these challenges (e.g., Waldram, Cal, and Maquin 2009). Currently, Maya and other Belizean citizens often use both Maya and Western medicine. Although cognizant of the role traditional medicine plays in today's medical field, the Belizean government does not have a national policy for these practices, nor a regulation on herbal medicines (World Health Organization 2019a, 82). Researchers have critiqued the Belizean government's inability to successfully tackle the nation's gross health inequities without including traditional practitioners in primary health care (Blanchard and Bean 2001; Djukanovic et al. 1975; Pesek 2009; Reeser 2014).

The nation's stance has also been troublesome for some cultural leaders and traditional practitioners in the country.¹ Twenty years ago, a grassroots organization known as the Maya Healers' Association of Belize (MHAB) formed in Toledo, the southernmost district of Belize, to promote traditional medical values in their community, to dispel a negative reputation instilled by some Christian churches (especially Evangelical churches), and to gain authority to enter into dialogue with government officials (Waldram 2009). The MHAB partnered with researchers from Canada and together produced community-based research to provide evidence of medical effectiveness to citizens, religious authorities, government officials, and biomedical practitioners who lack understanding of Maya medical practices or deny their importance.² Past research has extensively looked at the ways Q'eqchi' Maya medicine is effective (Hatala 2014; Hatala and Waldram 2015; Waldram 2009; 2013; 2015). However, to date, there has been little focus on how Maya community members in the Toledo District make use of and value traditional practitioners.

¹ Some groups, such as the National Institute of Culture and History, The Ix Chel Foundation, The Belize Association of Traditional Healers, and the Maya Healers' Association of Belize (formerly known as the Q'eqchi' Healers' Association) have expressed discontent with Belize's efforts to dismiss traditional practitioners and in response have promoted initiatives to support traditional medical practices and practitioners.

² For more information about this community-based research, see Vrettas and Waldram (2018) *A Report on the Maya Healers' Association of Belize*. The hyperlink to access this report is available in the References section of this thesis.

But in order to design better programs and policies, it is imperative to also understand people's behaviour (Datta and Mullainathan 2014), in this case, specifically regarding Maya medicine.

Two questions have guided the focus of this thesis: 1) How do patients and their families make decisions regarding therapeutic options? 2) How do patients and their families evaluate the effectiveness of an intervention, and how does this affect their care-seeking? This research is an extension of ongoing work by my supervisor, Dr. James Waldram, and several of his students. It conforms to the broader project's approved ethics from the University of Saskatchewan Behavioural Research Ethics Board (see [Appendix A](#)) and to a research license by the Belize government's National Institute of Culture and History (see [Appendix B](#)).

This research, among Q'eqchi' Maya community members located in a village in southern Belize, focuses on how they evaluate and select health care options. I contend that villagers equally value the medical practice of Q'eqchi' Maya and biomedical practitioners and that they select among them in a pragmatic manner. Patients and their family members abide by a cost-effectiveness analysis that is grounded in their relevant social, cultural, and economic context. Their decisions and care-seeking patterns illuminate how the two health care systems are used and the associated consequences. In examining the perspectives and behaviours of Q'eqchi' patients and their families, I identify pitfalls of international and government policies, and suggest recommendations that need to be addressed in future health care research and planning for Maya communities in Belize.

1.2 Background

Located in the Yucatán Peninsula, Belize is a small country in Central America that borders Mexico to the north, Guatemala to the west and south, and its east coast, with its hundreds of Cayes (offshore islands), trails along the Caribbean Sea. Belize, with a population of around 390,000 (Our World in Data 2019a) and English as its national language, is categorized as ethnically diverse; its people are of Maya, Mestizo, Creole, Garifuna, Mennonite, Indian, Chinese, and other descents. Half of the population is located in two out of six administrative districts: Belize and Cayo. The rest is almost equally divided between the northern and southern districts. The northern districts, Corozal and Orange Walk, hold a few more thousand people than the southern districts, Stann Creek and Toledo.

Archaeological sites of the Maya civilization in this area date back to around 1500 B.C. In pre-Colombian Mesoamerica, the Maya did not distinguish themselves as Maya. Although they share roots of a united tradition, they have a rich array of cultural practices and distinct dialects. Post-colonization, the Maya were spread across the land that is now distinguished as five nation-states: Mexico, Guatemala, El Salvador, Honduras, and Belize. At present, there are a total of around thirty Maya groups, distinguished by their spoken language. The consequences of European conquest, however, have shaped all Maya people's histories with similar political and economic injustices (Nettleton, Napolitano, and Stephens 2007). This shared history has fostered pan-Maya movements throughout Central America in which the Maya have come to portray a collective identity to advance political agendas (Medina 1998).

1.2.1 Maya History, Belize, and the Maya in Belize

The historical context of Belize shapes the Maya people's history in this locale. In the 16th and 17th centuries, Europeans colonized Central America. By 1862, the British challenged the Spanish and formalized the Colony of British Honduras, modern-day Belize. Between then and until the country's independence in 1981, many historical events played out that have contributed to the diversity in the region. A surge of Maya people migrated to British Honduras for better conditions of life. Between 1847 and 1855, the Caste War in Mexico led some Yucatec to migrate to the northern districts of Belize, and, in 1861, land tax and forced labour in Guatemala pushed many Mopan and Q'eqchi' to the western and southern districts of Belize (Bolland 1986, 26-27). To retain control, in the early 19th century, the British government instilled an arbitrary land reservation system and pushed Maya communities into small reserves in the southernmost district of Toledo (Toledo Maya Cultural Council et al. 1997, 7). The British prevented the Maya from owning and controlling their land, excluded them from participating in politics and trade, and used debt as a tool to render the Maya as labourers to the colonizers (Wainwright 2015; Wilk and Chapin 1988, 40). By the late 19th century, the Catholic Church developed a prominent presence in southern Belize and controlled the Maya by bribing them: if they settled in reservations, they would get their livestock penned and be able to attend school (Wainwright 2009, 449). This colonial legacy continues to contribute to the impoverished circumstances of Maya communities in southern Belize (Government of Belize and the Caribbean Development Bank 2010).

During the 1970s, many Evangelical Protestants from the United States established missions across the country. They would reward Maya converts from Catholicism with material necessities, such as medicine and clothing (Steinberg 1997). The practice of Protestantism, however, prohibits certain Maya cultural traditions, ones which are allowed under Catholicism (Steinberg 1997). This religious shift weakened cultural solidarity, and traditions began disappearing (Steinberg 1997; Toledo Maya Cultural Council 1998). Around this time, many ethnic associations and cooperatives started to form, particularly in the southern and northern districts, to advocate for rights and better the conditions of these particular groups (Wilk and Chapin 1988, 42). In 1978, The Toledo Maya Cultural Council formed in southern Belize as a way to steward Mopan and Q'eqchi' leadership towards sustaining cultural values and securing their ways of life from religious schism and encroaching government policies and laws. Many other similar organizations formed to protect Maya land and culture, and to build community capacity to better their conditions.³

There are three distinct Maya groups in Belize: the Q'eqchi', Mopan, and Yucatec. They represent about twelve percent of the country's population, close to 45,000 (Statistical Institute of Belize 2018, 17). Presently, the Toledo District holds the country's largest Maya population. There are now 37,600 people in the district (Statistical Institute of Belize 2018, 12), with a new 2020 census on the way that will illuminate the present population breakdown of ethnic groups. The 2010 census, a population nearing 30,785 at the time (Statistical Institute of Belize 2013, 8), shows that the Maya made up approximately seventy percent, including 16,000 Q'eqchi', 5,300 Mopan, and 30 Yucatec (Statistical Institute of Belize 2013, 78). Currently, some Maya live in Punta Gorda, the district's only town, but the majority live in the surrounding villages. Located in the middle of the district near the coastline, Punta Gorda is home to an ethnically diverse population. This port town is the central hub of the district. It offers bus services to and from the villages and a range of institutions and amenities such as banks, markets, restaurants, pharmacies, a hospital, a gas station, schools, and churches. There is one highway, the Southern Highway, that runs from Dangriga in Stann Creek District to Punta Gorda. It was only in 2011 that the final stretch of this

³ Some of these community-based conservation organizations include The Toledo Alcade Association, The Tumul K'in Center of Learning, The Toledo Maya Women's Council, The Julian Cho Society, and Ya'axche Conservation Trust, among others. Some of the initiatives they have put forward include: the promotion of cultural events and education, the securitization of scholarships for equal opportunity, the creation of women's cooperatives for economic development, and the protection of the land and its biodiversity.

highway was completed. Its extension now splits the highway in two, leading to Punta Gorda in one direction and to Belize's shared border with Guatemala in the other. While a handful of villages are located near the highway, many are situated on unpaved roads far from the highway.

There are thirty-nine Maya villages, which originally began with the reservation system, clustered in the south-west of the district, below the Maya mountains. Some villages have a mixed population, typically Mopan and Q'eqchi', while many others are relatively homogeneous. Before the reservation system and again today, villages are ruled by a council of elders led by an *alcaide* (village leader) who fulfills an administrative role and upholds customary law. In 2015, the reservation system was abolished after a successful court decision, where Maya community organizations lawfully secured half a million acres of land in Toledo for common use by their communities (DeLuca 2015; Toledo Maya Cultural Council 1997, 7).

The Maya who live in villages are largely self-reliant. Their food, clothes, shelter, furnishings, and medicines often come from the land. Most Maya rely on slash-and-burn agriculture and livestock. Some have cash crops of corn, beans, rice, cocoa, and citrus, while others raise cattle or catch fish as a major source of their income. There is a gender role division in Q'eqchi' culture. Usually, the men hunt, raise livestock, travel to the farm, perform heavy labour, and work a wage job, while the women stay near the home to care for the children, do laundry, cook, and tend to nearby gardens and animals. Women and men often cooperate, sharing tasks among themselves and with relatives. Villages are characterized as tightly knit communities with extensive kin networks. Households can include one to four generations, residing in one or two-room thatched huts with wooden walls and hard-packed dirt floors. Some houses with zinc roofs are remnants of rebuilding efforts after the devastating Hurricane Iris in 2001. Since that disaster, the few families who can afford it have built cement structures. While many villages have running water and electricity, some still do not. Maya living standards are low. There is little money for material goods, and access only to basic education and health care services (Wilk and Chapin 1988, 15; Pan American Health Organization 2009, 15). Toledo is referred to as the "Forgotten District" of Belize because of the political and economic prioritization given to the interests of foreign industries, its geographical distance from the capital, and the lack of resources it is allocated compared to other districts (Crooks 1997, 589; Reeser 2014, 57-61, 206).

1.2.2 Health Care Landscape in Southern Belize

The health care of Belizeans is the responsibility of the Belizean government's Ministry of Health, which provides, organizes, and coordinates various biomedical health sectors within the six administrative districts of the country. In 2001 the Ministry of Health launched a health sector reform process to achieve the goal of "improving equity, accessibility, quality, efficiency, and effectiveness in both public and private sector" (Pan American Health Organization 2009, 33). This reform includes a National Health Insurance program which seeks to provide free health for all through universal health coverage. Despite this reform, only one-third of the population in the Toledo District has ready access to health care facilities (Pan American Health Organization 2009, 33).

The present health care system builds on an earlier system instituted by British rule after World War II, prior to the nation's independence (Reeser 2014, 3). It operates under the influence of a dominant class who uses neoliberal models (applying economic calculations and ideologies to non-economic spheres of life such as policies) that permeate peoples' ideas and actions (Harvey 2005; Reeser 2014).⁴ For this reason, despite Belize's health care system being internationally lauded, it has also been critiqued as "functioning in the interest of the elite" (Reeser 2014, 178).

The provisioning of care is divided into four regions, Northern, Western, Central, and Southern, and includes an array of health facilities: health posts, health centers or satellite clinics, mobile units, polyclinics I, community hospitals or polyclinics II, regional hospitals, and a single national referral hospital – the Karl Heusner Memorial Hospital. The Southern Health Region, comprising Stann Creek and Toledo Districts, has a special mode of operation, mostly functioning through Ministry of Health, with relatively little private care service and where patient contribution towards the National Health Insurance is eliminated to maximize coverage (Channel 5 Belize 2017; Pan American Health Organization 2009, 22). Medical services and prescriptions are generally free, but sometimes patients incur a small co-payment (Pan American Health Organization 2009, 22).⁵ The health care system is divided into primary, secondary, and tertiary care. With primary care offering the most general services, these three levels are distinguished by

⁴ Neoliberalism refers to a set of ideas and/or practices which conforms to "free markets, sovereign individuals, free trade, and minimal government interference" (People's Health Movement, Section A1, 11).

⁵ A co-payment is a fee paid towards doctor visits or prescriptions at the point of service, and it is collected to bear some financial burden/risk to the users so that they do not use services frivolously (i.e. to prevent moral hazard) (Pan American Health Organization 2009, 22). Chapter Four reviews co-payments in greater detail.

their increase in specialized care. It is only the Karl Heusner Memorial Hospital that offers tertiary care. The four regional hospitals provide secondary care, while the rest deliver primary care. A patient is granted access to a higher level through a referral process.

Toledo is the most sparsely populated district, with a dispersed rural population. To address the issue of health care accessibility, the government set up nineteen health posts. These are served by professionally certified community health workers and tend to be the first point of care for the majority residing in villages. If the health workers cannot deal with the condition, they refer the patient to a satellite clinic. The district has five satellite clinics (in Big Falls, Santa Ana, Pueblo Viejo, Santa Teresa, and San Pedro Columbia) with two mobile health units operating out of three of the clinics to reach remote villages. These are equipped with a public health nurse and sometimes a general practitioner. There are two policlinics in Toledo (in San Antonio and Punta Gorda), which are also staffed with a nurse and practitioner. A satellite clinic or a polyclinic is the first point of care for those living nearby. If the nurse or practitioner cannot deal with the condition, they refer the patient to the Punta Gorda community hospital, the only hospital in the district. If a patient requires specialized equipment or personnel, the practitioner at the hospital will refer or transfer them to receive secondary care at the Southern Regional Hospital in Dangriga, Stann Creek District, located two and a half hours north. If still more specialization is required, the patient is sent an additional two hours north to Belize City's Karl Heusner Memorial Hospital.

Despite this impressive array of health services, Douglas Reeser (2014, 96), who conducted extensive interviews with the Ministry of Health personnel in the Toledo District, found that staffing is a major issue. Community health workers are not always available, and some villages remain uncovered (Reeser 2014, 97). Furthermore, practitioners are supposed to spend scheduled time on rotation in the satellite clinics, yet this does not occur with any regularity because of the limited staffing of doctors, and the priority to keep employees at the polyclinic and community hospital in Punta Gorda (Reeser 2014, 98).

Biomedical care is also provided through private clinics and non-governmental organizations (NGOs). In Toledo, there are only two private clinics. Their practitioners have close ties with the Ministry of Health, often either working or having worked for the Belizean health system (Reeser 2014, 107). In addition, there are about four private clinics located in different cities across the neighbouring Stann Creek. If families can afford private care, they may choose to travel outside the district and even the country to access other private options. Some pharmacies

are also privatized in Belize. There are a handful of pharmacies located in Punta Gorda where a pharmacist can assist with over-the-counter medication selection. The Hillside Health Care Clinic, located in Eldridgeville, a fifteen-minute drive out of Punta Gorda on the Southern Highway, is a United-States faith-based charity clinic providing free service and medication. It is the only NGO in the district offering primary care service, yet, despite this status, the clinic still works alongside the Ministry of Health to streamline service delivery.

Additional care providers operate outside the gaze of the Ministry of Health. In Toledo, many people know and use herbal remedies available to them from the surrounding environment. They have access as well to traditional practitioners who offer specialized knowledge and skilled techniques. Traditional medicine encompasses various traditions and multiple layers, including but not limited to, Q'eqchi' Maya, Mopan Maya, Yucatec Maya, Garifuna, Chinese, and East Indian practitioners, folk practices, and herbal mixtures. Maya practitioners are referred to – pejoratively in some cases – as “bush doctors” in English, and there are subsets of practitioners, some of whom are recognized as herbalists, snake doctors, or spiritual healers. Many Q'eqchi' and Mopan traditional practitioners live in villages across the Toledo District and beyond. They work independently and gain their reputation by word of mouth.

When speaking about traditional knowledge and practices, it is essential to understand that these are not static; they are fluid conceptions that adapt and change over time as they interact with other cultural systems and ways of life (Hatala 2014, 6). However, Maya medicine has historical continuity with aspects of pre-Columbian knowledge, which over time has been fused with elements of Christian spiritual beliefs, Afro-Caribbean ideologies, Graeco-Roman pathology, and biomedical terminologies, among others (Foster 1985; Hatala 2014, 5; Waldram, Cal, and Maquin 2009, 45-46; Waldram 2020). Furthermore, a practitioner becomes such by learning from a master. It is not uncommon for Maya practitioners to have learned from many masters. In this way, medical knowledge has syncretized and varies from one practitioner to another. Several factors play a role in their trained school of thought: whether they learned from a Yucatec, Mopan, Q'eqchi' Maya practitioner, or from masters of other cultural backgrounds, their religious affiliation, the generation into which they were born, as well as their interests and aptitudes.

Christian pastors and spiritual practices are another available health care option. While some religious figures have experience with traditional medicine, others do not. For example, Protestant medical missionary groups from the United States come twice a year and travel to rural

villages offering free health care, providing biomedical service and faith-based practices. The spread of Christianity has influenced certain community members to lead their community church by becoming pastors. A pastor's ethnicity and their denomination show how syncretization could fuse into different forms. Overall, there are three kinds of pastors. First, there are the pastors who do not identify as Maya (such as some missionaries). They often condemn and stigmatize the work of traditional practitioners because of a deep-rooted colonial prejudice against belief in deities not acknowledged in the Bible. Instead, they treat people with prayers and gestures as a form of Christian faith healing. Second, are the pastors who are Maya from Protestant denominations. They tolerate the use of bush medicine but condemn animistic beliefs and the practice of *awas* (a therapeutic intervention involving sacrifice to evil spirits). These pastors may treat people using herbal medicine in tandem with Christian prayers. Finally, there are the Maya pastors who were traditional practitioners before becoming pastors. More often than not, these are Catholic rather than Protestant pastors, and they fully accept the work of Maya practitioners. In addition, community members also rely on religious and spiritual practices such as praying to God, fasting, attending church, reading the Bible, and practicing atonement, in the quest to improve health outcomes.

The medical landscape is, therefore, vast, comprising biomedical, religious, and traditional home-treatments, as well as biomedical public and private practitioners and services, traditional practitioners, and pastors. The scope of this thesis encompasses all of these health care options.

1.3 Entering the Field and Q'eqchi' Way of Life in Indian Creek

It is rainy season in Belize, and at my altitude, I see the *milpa* (slash-and-burn) system in effect. In an eight-person propeller plane, the pilot drops off two couples, each pair in a touristic town near the coast, and finally heads to the last destination, Punta Gorda. There is one other person in the plane, a local, whom I can faintly hear speaking to the pilot about his excitement to be off work and heading back home to his family. I keep my gaze on the landscape beyond the window to see if I can spot differences between Stann Creek and the "Forgotten District," Toledo. There are many more dense, controlled fires in Toledo's continuous fields of lush green forests, and the buildings are smaller and more spread out. Gliding over Punta Gorda town, I see many structures with missing roofs and broken walls. Trails of smoke draw my attention; they seem to be coming from

small burning trash pits near the houses. Our descent onto a single landing strip marks my first of ninety-six days in Belize.

I spend the first few days alone, exploring the lively, friendly, multi-cultural town of Punta Gorda. Then my supervisor, Dr. James Waldram arrives, and introduces me to his connections, made here already. A bit of background of his presence here may be needed.

During the time of cultural revitalization in Belize, a project co-produced with the Belize Indigenous Training Institute led to the formation of the Maya Healers' Association of Belize (MHAB), formerly known as the Q'eqchi' Healers' Association (Otarola Rojas et al. 2010). This group was founded in 1999 by coordinator Victor Cal and traditional practitioner Albino Maquin. Over the years, between ten to fifteen Maya practitioners from the Toledo District have been active in this association. Some of the primary goals of the MHAB included planting a medicinal garden and mobilizing projects to promote Maya values. In 2004, Waldram was invited by the members of the association to undertake research on their medical practices. This connection was the beginning of a long-term collaborative relationship that, over the last sixteen years, led to the creation of many projects through a wide range of mediums, such as research publications, film, and reports. These projects involved association members as well as other community members, in helping with interpretation and translation. Many were children and grandchildren of the practitioners in MHAB. Some of these relationships with the members of the MHAB and their families have come to shape my visit. They are the individuals who guided me throughout my time in Belize.

The time of my arrival, summer of 2017, marks a different period for the association, one in which external funding is coming to an end, where MHAB activities are not as frequent, and where many practitioners have aged, and some passed away. We first meet with Tomas Caal, a practitioner's son from the MHAB. Tomas, in previous years, has helped with the interpretation of conversations with the practitioners. The three of us meet the five active practitioners in the association on separate days. Mr. Francisco Caal lives in Punta Gorda, his brother, Mr. Emilio Kal (who passed away in 2020), in Jalacte, a village close to the Guatemalan border, Mr. Manuel Choc, in Indian Creek, and Mr. Augustino Sho and Mr. Manuel Baki (who passed away in 2018), in Big Falls. Entering Mr. Baki's home, we find him bed-ridden and discouraged. He asks if we could have a practitioner from the MHAB come to treat him. This situation resulted in me seeing Mr. Manuel Baki more often during the research, as well as Mr. Choc and Mr. Augustino, who

provided ongoing medical care. Being a practitioner is not a full-time profession for many since men need to provide for their families by engaging in farming activities and, for some, working a wage job. The traditional medical practice demands that payment be a voluntary act by the patients. This leads to these practitioners incurring debts, as payment often fails to cover costs of transportation, purchased ceremonial objects, the time elapsed in plant searching, and the service for medical treatment (Waldram 2009).

After meeting the practitioners, Waldram also introduces me to Pedro Maquin and his family, who live in Indian Creek. Pedro's grandfather was the founding practitioner of the MHAB. Pedro and his wife, Fercia Coc, mentored numerous students who have worked with the members of the association. With their past experiences, they welcome me warmly, and I bond with them more quickly than I had anticipated. During this first introduction, Fercia invites me to join her and her family in a cultural experience they will be hosting for a group of tourists. The following day, I visit the Maya Arts Women Group, one of three women-led co-operatives in Indian Creek, and one of many in Belize that host Maya cultural experiences. These co-operatives are eco-tourism initiatives that started as a way to raise gender rights and lend power and a source of money to Maya women. During this visit, Fercia introduces me to her family, their traditional practices, and their contemporary ways of life. This first visit marks my relationship with the family. For this event and others, alongside all other regular daily activities, I become an extra pair of helping hands to the women.

I spend most of my days with Fercia, her children, and her extended family in Indian Creek. My relationship with Mr. Baki brings me often to Big Falls. Indian Creek and Big Falls are two villages, near the middle of Toledo District, located eight kilometres apart along the Southern Highway. From the apartment where I am staying in Punta Gorda, I take a forty-minute bus ride to Indian Creek, the further village of the two. Unlike other Maya people who live in more remote villages, the villagers from Big Falls and Indian Creek have easy access into town and out of the district. In addition to the local bus lines that operate to and from villages in Toledo, they also have access to the James Bus Line that runs the length of the nation with buses passing regularly. While Indian Creek is predominantly a Q'eqchi' community with slightly more members who identify as Protestant than Catholic, Big Falls has a mixed population of Mopan, Q'eqchi', and other ethnicities who mostly identify as Catholic (Toledo Maya Cultural Council et al. 1997, 100-101). In the late 1990s, a census of the villages documented the population of Big Falls at 604 and Indian

Creek at 447 (Toledo Maya Cultural Council et al. 1997, 100-101); these numbers have probably by now almost doubled. Houses in Big Falls are clustered, and many amenities exist in this village with electricity, including one of the five satellite clinics in the district. Houses in Indian Creek span along the highway. With no electrical power lines, their amenities include only a handful of family-owned shops, corn-mills, a preschool, a primary school, and an Evangelical, Baptist, Pentecostal, and Catholic church. The health post in the village is not yet rebuilt following Hurricane Iris in 2001. Once complete, probably in late 2020, it will likely have a community health worker serve a couple of days per week, or would be a place for a mobile clinic to set up when on rotation.

From the highway to Fercia's house, we walk through many other people's homes and pass a local market that sells dry goods. Houses are a few meters apart from one another and are separated by narrow trails of earth, packed down by villagers' constant use over time. Children are playing in the yards. Dogs, chickens, and turkeys are roaming freely. Two tweens wearing casual dickies and a t-shirt are each pushing the handlebar of a bicycle, steering it forward. On the right-side handlebar hangs a 5-gallon pail with drinking water that they just filled from the hand-pump community well. "*Sa' Qachool*," Fercia greets them as they pass, and I meet them with a smile. The Q'eqchi' in Indian Creek live an egalitarian lifestyle, valuing material equality. All community members have similar homes and crops of the same size. Many dress alike, women dress colourfully, either wearing a t-shirt and skirt or preferring a traditional style of dress, while most men wear a t-shirt or tank with dickies. Some families have a few more material goods than others, such as a bicycle, vehicle, cellphone, battery-operated radio, television, stove, or fridge. However, electronics and appliances are hard to maintain with electricity limited to solar-powered battery packs.

There is smoke coming out of the door and windows of most huts, as women are getting ready to serve lunch. With homes so close to one another, crossing paths with other community members going about their day is inevitable. It is common for friends and family to stop in on their way to their final destination. Community members value communal affairs over personal privacy. Q'eqchi' homes reflect this, often consisting of a large open room with a few hammocks hanging from the ceiling, promoting conversations and interactions. Walking past people's homes, Fercia shares stories about a given person's state of wellness and how they are doing. I am always surprised at how much she knows about other villagers' lives. Many Q'eqchi' have lived in Indian

Creek for years and have extended family members from a few generations who live here too, characterizing the community as close-knit. Village activities bring everyone together; they celebrate and socialize at soccer games, church ceremonies, weddings, baptisms, graduations, and even building a home.

As we turn the corner to Fercia's home, I hear her youngest daughter giggling over the faint soca music playing from a neighbour's radio. I turn my head and spot her bathing in a large basin next to her oldest sister, who is washing the plastic dishes. Each house has a pipe with running treated water; they pay a monthly fee of \$10 for 4,000 litres. It is Saturday, and the children are off from school. Children under the age of fourteen must attend elementary school and while the government covers tuition fees, it does not cover the cost of books, uniforms, and education beyond this level. Many of the men have gone to the farm or work to provide for their families. Typically, it is men who are employed, working at co-operatives, industries, and businesses in Toledo or other parts of the country. Women tend to the children and household duties. Relatively few are employed, but some sell their garden produce and hand-made crafts. The practices of younger generations are shifting, however. I met young adults, including women, who looked for jobs outside of the village. Younger Q'eqchi' are choosing work that is more deeply embedded in the global economy, rather than working in traditional ways, such as gardening and farming. These changing ways of young people are a concern to many, fearing loss of Maya cultural heritage in the future, especially regarding their language (Steinberg 1999, 232) and traditional medical practices (Waldram, Cal, and Maquin 2009, 40).

Presently, there are three Q'eqchi' traditional practitioners in Indian Creek, and one of them, Mr. Choc, is part of the MHAB. There were a few more before my time in the village, but they have since passed away. Among Q'eqchi', they refer to traditional practitioners as *iloneleb'* (seers, or the ones who see) and *ilonel* in the singular.⁶ Within the village, there are four pastors of Q'eqchi' descent who help heal people in their community, one of whom I had the opportunity to meet and who has extensive knowledge of herbal remedies. Some families also know these remedies, growing medicinal herbs around their homes. The shops in the village sometimes have over-the-counter pharmaceuticals for sale. In some instances, there are travelling salespeople from

⁶ The translation as "seer" or the "one who sees," relates to their ability to prognosticate health disorders (Hatala, Waldram, and Caal 2015).

Guatemala who pass through villages, selling goods including folk medicines and pharmaceuticals regulated in their own country.

1.4 Theoretical Perspective and Literature Review

In the field of medical anthropology, four theoretical paradigms that have come to build theories relating to aspects of health and health care: empiricist, cognitive, interpretive, and critical. Anthropologist Byron Good (1994) outlines these, shows how overlap occurs among them, and how each is an essential component in understanding and forming a complete picture of cross-cultural health care practices, health, and ill-health. Good (1994, 36-64) explains that the difference between these four paradigms lies in the way they have come to perceive ill-health: The empiricist paradigm treats ill-health as a product of nature, separate from culture, and thus, studies aspects of people's beliefs and behaviour as they are; the cognitive paradigm understands ill-health as forms of the various epistemological and cognitive models that exist, and thus, looks at how people organize and categorize aspects of the world; the interpretive paradigm recognizes ill-health from the way the people themselves give meaning to things, and thus investigates how people construct and interpret their realities; the critical paradigm understands ill-health as embedded in power dynamics and inequality, and thus examines the historical, political, and economic circumstances that shape local health conditions. Nested within these general theories are a plethora of middle-range theories, which offer specific and tangible concepts to help explain and interpret the relationships among locally relevant patterns that arise from the collected data (Schensul, Schensul, and LeCompte 1999, 14). Since the research questions emphasize experience and choice of treatment, traversing all four theoretical paradigms is necessary to accurately grasp how the Q'eqchi' evaluate effectiveness, make decisions, and seek care.

To make sense of the data collected in relation to the research questions, I have drawn on multiple middle-range theoretical concepts within these four paradigms. These appear within their relevant context throughout the following chapters. The data gathered, however, led to a consideration of yet another theoretical paradigm: pragmatism. Originating over a century ago by American philosophers, Charles Sanders Peirce, William James, and John Dewey, pragmatism is both a theory and an approach for the inquiry into the epistemological problem concerning truth. For pragmatists, knowledge is not a reflection of reality, but rather it mediates an individual's relation to the physical and social world, and, thus, serves as a tool for action (Cornish and

Gillespie 2009, 802). People approach life pragmatically, interpreting the world in a way that makes the most sense to them, so that they may engage with a given problem. A pragmatic approach “argues that there is no absolute ‘best’ method, but each method is good at achieving particular ends” (Cornish and Gillespie 2009, 803). The variability of methods to achieve a particular end highlights the agentic and practical nature of human beings. The emerging patterns in interviews and the unfolding of sickness cases demonstrate that the Q’eqchi’ exercise agency and choose pragmatically, making use of the knowledge and selecting the treatment option which is most satisfying to them at a given point in time. Indeed, this approach holds not only for Q’eqchi’ patients and their families’ health care behaviour, but also in the way I have come to craft this thesis. I further describe this process of analysis in a later subsection.

The dilemma of structure versus agency in shaping human behaviour is apparent (see Archer 1995). While empirical and interpretive paradigms consider agency, the former attributes it from a functionalist perspective and the latter from a phenomenological one.⁷ For the most part, theories in these schools of thought do not elaborate on types of agency. Stemming from pragmatism is a middle-range theory regarding the modes of human agency (Simon 2001) which helps illuminate the different kinds of agencies that play out in the following chapters. Psychologist Albert Bandura (2001, 13-14) particularizes personal, collective, and proxy agency. Personal agency is an individual’s cognitive, emotional, and motivational processes that are exercised to produce given outcomes. Collective agency is a people’s shared belief to act conjointly and transitionally to produce given outcomes. Proxy agency is a socially mediated mode of agency, where people reach out to others who have access to needed resources or expertise to secure the desired outcomes. This form of agency is highly effective when people “do not have direct control over social conditions and institutional practices that affect their lives” (Bandura 2001, 13). Although Q’eqchi’ patients’ and their families’ behaviour is shaped by social and structural conditions, personal, collective, and proxy agency all play an important role in their conception of health, care-seeking, and decision-making.

While these theories provide a framework to help structure ideas, the following literature delineates the parameters of this research. The first concerns health care systems and the

⁷ For a history of empirical approaches having addressed agency as an adaptive function see Good (1994, 40-44). Certain interpretive approaches are especially dedicated to describing “praxis,” the embodied focal point of structural forces and agentic factors. Schepers-Hughes and Lock’s (1987) three bodies is one tool often used to capture the phenomenological dimension of the mindful body.

characteristics of a place with many available health care alternatives. The second pertains to the patients' care-seeking patterns and factors that influence their health care decisions. The third focuses on an ongoing discussion surrounding the appropriate way to study and evaluate an intervention's effectiveness.

1.4.1 Health Care Systems and Medically Plural Landscapes

A health care system is a “community's ideas and practices relating to illness and health” (Pool and Geissler 2005, 40). Health care systems have been a central focus for medical anthropologists, who consider them also to be cultural systems. A health care system is not regarded as an entity, but as a conceptual model used to understand how people deal with illness and health in particular cultural settings. Within a given place or society, there may be many available medical systems, characterizing that area as medically plural.

A plethora of research exists in this area of study. The focus is either to understand a specific system (e.g., Freidson 1970) or to compare systems cross-culturally (e.g., Kleinman 1980; Janzen 1978). Arthur Kleinman (1980, 24) explains that every health care system encompasses “patterns of belief about the cause of illness; norms governing choice and evaluation of treatment; socially-legitimated statuses; roles; power relationships; interaction settings; and institutions.” He identifies three sectors of a health care system: popular, professional, and folk. Most health care decisions and evaluations happen in the popular sector, as it comprises individual, family, social, and community knowledge and practices. The professional sector contains professional scientific medicine, such as Western biomedicine, and professionalized Indigenous traditions, such as Chinese and Aryurvedic medicine. The folk sector includes all other non-professionalized secular and sacred organized healing professions.

Belize has a medically plural landscape. Biomedicine, traditional medicine, and religious faith healing play an integral role in the health care of its citizens. In this research, I use the following definition of traditional medicine from the World Health Organization: “the sum total of the knowledge, skills, and practices based on the theories, beliefs, and experiences, Indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness” (World Health Organization 2000, 1). Specifically, Indigenous medicine like that of Q'eqchi' medicine “has three components: integrated ideas about health, sickness, and treatment that emerged in the precolonial

context of place and an associated appeal to “tradition” as the authoritative means of validation; a means to test existing knowledge and to acquire new knowledge; and an organizational structure to categorize this knowledge and associated practices, in part to ensure its transmission to future practitioners.” (Waldram 2020, 27). I refer to biomedicine as the medical knowledge and practices that stem from a Western European tradition, tightly coupled with the scientific method and positivism. Throughout this thesis, I use the term biomedicine and Western medicine interchangeably. I refer to religious and spiritual practice as a Christian tradition in which spirituality and a pastor’s prayer elicit psychological and physical healing.

While the biomedical system in Belize categorically fits in the professional sector and religious faith exclusively in the folk sector, traditional medical systems are on the cusp between the professional and folk sector. Although most remain solely in the folk sector, others, such as the MHAB, are pushing for inclusion into the professional sector by setting up an organization that values training and certification.

In critiquing Kleinman’s medical systems approach, Robert Pool and Wenzel Geissler (2005, 44-5) compare it to Murray Last’s non-systems approach, which contends that uniformity among aspects within a system is rare. Last (1981) argues that, unlike researchers, laypeople do not conceptualize therapeutic options as coherent systems. Nor are they generally interested or knowledgeable in the functions and workings of medicine. Last’s (1981) perspective requests the suspension of Kleinman’s (1976; 1980) assumption of looking at people’s beliefs and behaviours within a single medical system. He calls for a “non-system” approach where the focus of study moves beyond a medical system to look at the “medical culture,” which is informed by people’s practices and how they use available health care options (Last 1981, 389). Other researchers (Janzen 1978; Stoner 1986; Young 1980; Young and Garro 1981) have followed suit, proposing that the study of health care systems is relatively limited for understanding community members’ health care decisions. In its place, they advise documenting utilization patterns as a first step to determine the cultural logic of laypeople’s decisions.

This research takes on both a system and non-system perspective. It distinguishes the service offered by doctors, traditional practitioners, and pastors, in order to make sense of how the Q’eqchi’ understand these practitioners and their service. In making this distinction, however, the individual’s experience remains the focus, that is, how individuals seek care and make decisions during a sickness episode that typically involves access to more than one system.

1.4.2 Health Care Behaviour

The research on health care behaviour includes care-seeking and decision-making, which are studied across disciplines. To set the parameters of this ethnographic research, I emphasize an anthropological perspective. Although, throughout the body of this thesis, I sometimes draw on psychological and sociological concepts and theories that have shaped this field of study. Within psychological investigation, much of the research has focused on people's beliefs about sickness, and the cost-benefit of choosing a health care option (see Rosenstock 1974). Sociological explorations demonstrate that care-seeking is defined by a series of stages in which people and events interact to influence a patient's decision and subsequent behaviour (see Freidson 1970 and Suchman 1964). Anthropological inquiry has dabbled in both of these areas: care-seeking patterns are used as a tool in ethnographic research to focus on how individuals respond to illness, and to uncover the cultural logic behind health care choices (Good 1994). Anthropologist Noel Chrisman (1977) moves the investigation further to include how culture affects health care behaviour. He delineates five stages of care-seeking: symptom definition, shifts in role behaviour, lay consultation and referral, treatment actions, and adherence. At each stage there may be re-evaluation by the patient, their family, and community members, rendering care-seeking a dynamic process.

A founder in the field of cultural care-seeking, Lola Romanucci-Schwartz (1969), argues that choices take on a "hierarchy of resort." In a medically plural landscape on the Admiralty Islands, she found that the Manus' pattern of resort involves the selection of one medical system first, and if the sickness continues, individuals will re-evaluate and choose another medical system. They continue this behaviour until they exhaust all options. She distinguishes two types of a hierarchy of resort: acculturative, where the newest introduced medical system is the first option chosen; or counter-acculturative, where the historically prevailing medical system is the first option chosen. The type of hierarchy, she explains, depends on people's diagnostic interpretations and faith surrounding a medical system's curative practices. Overall, patients use medical systems in a variety of ways. They may serially use them, wherein a sequential pattern of resort for a specific condition can be defined. They may use one system exclusively, distinguishing each system distinctly for a specific condition. Or they may use systems simultaneously. While earlier researchers attribute a pattern of resort to people's beliefs, later researchers accredit familiarity as well as cost (e.g., Leslie 1976; Young and Garro 1981).

Health care decision-making overlaps with, but is distinct from, care-seeking behaviour. While care-seeking is the actual process of utilizing a medical system, decision-making involves a set of criteria that have gone into a treatment selection. Over the years, researchers have mapped out the many variables that influence decision-making. Typically, patients and their families make decisions according to subjective reasoning and structural constraints. Subjective reasoning includes people's idea of a condition's severity (e.g., Young and Garro 1981; Mechanic 1982), the type of sickness (e.g., Garro 1990; Romanucci-Schwartz 1969), the belief and experience in effectiveness of therapeutic options (e.g., Nichter 1980; Romanucci-Schwartz 1969; Young and Garro 1981), the knowledge they have of the remedy (e.g., Young and Garro 1981), and the economic resources they have available (e.g., Lane and Inhorn Millar 1987; Leslie 1976, Young and Garro 1981). Often, subjective features are shaped by structural constraints, including relationships and their influence on access to social networks (e.g., Garro 1990; Mechanic 1982), physical, social and geographic barriers (e.g., Annis 1981; Lewis, Fein, and Mechanic 1976; Young and Garro 1981), and political-economic circumstances (e.g., Janzen 1978; Lewis, Fein, and Mechanic 1976; Morsy 1980).

This research looks at how the Q'eqchi' sought care for past sicknesses in order to reveal the particular factors they considered when selecting an option. In the medically plural state of Belize, Reeser (2014) documents that patients who live in southern Belize often exhaust all possible health care options. Serial and simultaneous resorts are an inevitable characteristic of community members' care-seeking behaviour. The research at hand describes care-seeking patterns, and it also identifies both subjective and structural aspects affecting decision-making.

1.4.3 The Effectiveness of Interventions

While many communities use and continue to endorse traditional medicine, one of the central concerns, considering the worldwide dominant and privileged biomedical framework, is the question of its efficacy. The concept of efficacy represents a scientific standard, defined as the measurement of an intended result of therapeutic substances or treatments within a double-blind controlled trial. Biomedicine, confined by medical science, puts forth its model as objective and value-free. However, researchers, who have unpacked biomedicine's history and epistemological workings, critique it as value-laden (Gordon 1988; Latour and Woolgar 1979; Lock and Scheper-Hughes 1996) and call attention to its power over other medical systems (Baer, Singer, and Susser

1997; Leslie 1976; Good 1994), wherein “state policies concerning traditional medicine are largely negotiated and supervised by people trained in modern scientific medicine” (Leslie 1983, 314).

Assessing the efficacy of traditional medicine requires a holistic approach that is inclusive of both herbal medicine and traditional procedure-based therapies (World Health Organization 2000, 2). Consequently, gathering proof of its efficacy is challenging when using biomedical methodologies, which value adequate sampling, precise measurement, and timely data collection within a controlled setting, in order to derive statistical results. Studying traditional medicine in this way disregards its holistic nature, which includes process, procedure, context, and cultural significance (Craig 2012; De Gezelle 2014; Waldram 2000), as well as people’s expectations and hopes for a treatment’s outcome (Young 1976a).

Allan Young (1979, 68-69) differentiates three kinds of standards to evaluate a medical treatment. First, scientific proof, which requires a rigid standard of confirmation. Second, empirical proof, where observations and coherent propositions confirm an outcome. This type of proof moves the study away from efficacy to effectiveness, wherein an intervention is evaluated according to whether it “purposefully affect[s] the real world in some observable way,” and “bring[s] about the kinds of results which the actors anticipate will be brought about” (Young 1976a, 7). Third, symbolic proof, in which circumstances are made meaningful through the ordering of objects and events into a coherent pattern. To understand the various aspects of a treatment’s effectiveness within empirical and symbolic proofs, researchers have looked at expectation (e.g., Hahn and Kleinman 1983), rituals (e.g., Csordas 1990), symbols and metaphor (e.g., Dow 1985; Kirmayer 1993), bodily sensations and emotion (e.g., Desjarlais 1992; Schepers-Hughes and Lock 1987), narrative (e.g., Good 1994; Garro and Mattingly 1994; Kleinman 1988), and actors’ experience of health outcome (e.g., Poltorak 2013).

James Waldram (2000, 615) argues that effectiveness is “not a fixed concept anchored to a singular perspective of health, illness, and disease, but, rather, is something that is constantly shifting and being negotiated between the various role players in the sickness episode.” In this way, effectiveness is multidimensional; it is context-related, depending upon time, place, situations, and people. Effectiveness is evaluated differently by doctors, traditional practitioners, and patients who have distinct understandings of medicine’s facts, functions, and outcomes (Kirmayer 2004; Waldram 2000; Young 1981). Effectiveness is also evaluated at different stages and according to different outcomes (Etkin 1988; Young 1976a). Furthermore, effectiveness is

shaped according to a health care system's epistemological grounding, in terms of the intended outcome, either restorative or transformative in nature (Waldram 2013). Restorative processes eliminate pathology and return a patient's functioning to the pre-sickness state, whereas transformative processes alter a patient's understanding and behaviour. Both processes are present in all health care systems. They often operate in an integrated way, such that restorative outcomes can have a transformative effect on the individual, and vice versa (Waldram 2013).

Q'eqchi' Maya medicine has its own ontology and epistemology concerning disease and illness etiology (Hatala and Waldram 2016; Waldram 2009; 2013), mental illness categorization (Hatala 2014; Hatala, Waldram, and Caal 2015), medicinal ethnobotany (Amiguet et al. 2005; Otarola Rojas et al. 2010), and specialized treatment techniques (Waldram and Hatala 2014; Waldram 2012; 2020). To date, research has shown effectiveness of Maya medicine in myriad ways: by analyzing Maya practitioners' knowledge and practices (Hatala 2014; Waldram 2009; 2013; 2015; 2020); observing bodily sensations within healing practices (Hatala and Waldram 2015); comparing Maya therapeutic practices to other traditional medical practices (Balick, De Gezelle, and Arvigo 2008); examining the active pharmacological ingredients in their medicines (Bourbonnais-Spear et al. 2005; De Gezelle 2014); and studying social responsibility and support of interpersonal relationships involved in therapeutic settings (Berger-Gonzalez et al. 2016).

Little work has been tailored towards how the Maya in Toledo use the services of Maya traditional practitioners. *Traditional Medicine in Belize*, published in 1998 by Elane Chanecka, a nursing student, briefly covers the way Maya communities use traditional practitioners, and addresses the significance these practitioners could have for nurses in primary health care. Anthropologist Douglas Reeser's dissertation, published in 2014, explores the Belizean public health service from the perspective of public servants and residents from various ethnic backgrounds, and discovers the inadequacy of the nation's health care in the Southern District. Krista Murray's thesis, published in 2020, highlights the changes biomedicine has brought forth to maternal health care, and shows the importance *iloneleb'* have had for a generation of Q'eqchi' women during their pregnancy, childbirth, and postpartum. None of these have delved into the issue of health care decision-making involving both Q'eqchi' Maya and Western medical systems. By interviewing Q'eqchi' patients and their family members about sickness experiences, and observing their care-seeking patterns, this research addresses how they evaluate the effectiveness of a medical practice and its outcomes.

1.5 Methodology

The methodological framework of this thesis is ethnographic in nature. Ethnography is both a process of collecting data and a written account of the amassed data. The defining features of data collecting, participant observation and interviewing, allow for the conceptualization of culture and its related practices from “the native’s point of view, his relation to life, to realize *his* vision of *his* world” (Malinowski 2007 [1922], 56). For written accounts, “ethnographers seek to generate useful information about culturally patterned beliefs and behaviours and reasons accounting for behavioural and other forms of diversity within groups” (Schensul, Schensul, and LeCompte 1999, 9). Grasping an insider’s perspective regarding events and their context allows for a comprehensive understanding of the complexities in health and health care (Savage 2000). Unlike other research methodologies, ethnography is capable of capturing the inherently complex, fluid, and indeterminate (Reynolds, Milton, and Garnett 2018, 1) by looking at aspects of life from many theoretical angles (Panter-Brick and Eggerman 2017; Savage 2000). A goal of ethnography is to “effectively build local theory – theories that explain events, beliefs, and behaviour” (Schensul, Schensul, and LeCompte 1999, 7) in a given site, at a given time, and among communities. These aspects have come to define “culture,” yet they are in no way static, and there are intra-cultural variations even within a given community.

In answering the research questions semi-structured interviews and participant observation were employed. Pedro and Fercia were my cultural guides, and the trust and relationships they have cultivated within their community were extended to me. I began interviews within the first week of meeting their family. Pedro, Fercia, and I first had a meeting to discuss the research questions and what kind of participants would be most valuable and to review the guiding questions. Participants selected by Fercia and Pedro were individuals and family members that had dealt with certain sicknesses and health care experiences, and in some cases, specifically having used an *ilonel* at some point. A total of twenty-six interviews (seventeen women and nine men between the ages of twenty and sixty-one, with a few elders unable to recall their age) were conducted with villagers from Indian Creek (see [Appendix C](#) for the interview guide). Four additional interviews were completed with Q’eqchi’ and Mopan Maya from other villages. Before the start of each interview, either Fercia or Pedro helped gain oral informed consent from the participant. We answered any questions they had, and each participant received an honorarium for their participation and time.

Furthermore, I interviewed the traditional practitioners from the MHAB regarding general questions surrounding their practices and how they evaluate treatment effectiveness (see [Appendix D](#) for the interview guide). A total of ten semi-structured interviews were completed with the *iloneleb'*. Tomas was invaluable to this process, as he joined me in the interviews to translate and facilitate discussion. In addition to these interviews, Mr. Baki allowed me to join the treatment sessions he underwent. This gave me access to how he came to understand the effectiveness of interventions. After the treatments, four semi-structured interviews were completed, two privately with Mr. Baki and another two privately with the *iloneleb'* who treated him – one with Mr. Augustino and the other with Mr. Choc (see [Appendix E](#), section 1 and 2 for the interview guide used for the patient and *ilonel* respectively).⁸ Since James Waldram and Andrew Hatala have completed extensive research with the *iloneleb'* from the MHAB, I often refer to their work regarding Q'eqchi' Maya medicine's effectiveness to support the findings in this thesis.

After the end of each day, I wrote descriptive field notes (“when,” “where,” “what,” “who,” “how,” “why”) and other relevant details from the day's happenings. My field notes were invaluable in bringing together the stories of my participants and in contextualizing daily life in Indian Creek. The time I spent with Fercia and her immediate and extended family allowed me to witness their daily life. During my time with them, eight people experienced some form of sickness, three of whom I was able to interview. Many informal conversations with people in town also came to shape my understanding of Toledo, Maya livelihoods, and the perceptions people held of traditional practitioners and the biomedical health care options available. Punta Gorda is a small town with friendly locals who are curious about people's stories and how they ended up in Toledo. Many locals and villagers mistook me for a Peace Corps or other volunteer from abroad serving for a local organization. I took every opportunity to converse and found that a chat about the research topic often led to extensive discussions about aspects pertaining to Toledo's health care landscape. I also had conversations with pastors from different denominations and a protestant missionary. As well, there were three Maya security guards at the apartment where I stayed, two of Mopan and one of Q'eqchi' descent, who spoke with me regularly and provided an extended account of the similarities and difference in ideas between Maya people from different villages

⁸ Mr. Augustino treated Mr. Baki at the start, but, after a few interventions, Mr. Augustino's schedule became busy with other pressing commitments. To ensure the regularity of the treatment sessions, it was agreed upon to have another *ilonel*, Mr. Choc, attend to the medical condition.

and religious denominations. These conversations, although not included, have helped form the context through which I have interpreted the data.

My interactions happened in English when in town, whereas when I would visit community members in the village, I would often have someone accompany me to facilitate our discussions in Q'eqchi'. Fercia and Pedro would be present when I met with participants, and, in some cases, they facilitated certain interviews in full. Out of the forty-four interviews, twenty-three were completed in English, which I transcribed. The remaining twenty-one interviews undertaken in Q'eqchi' were processed using a double translation approach (see Waldram 2020, 58-60). During the interview, I would ask the question in English, and a collaborator (either Tomas, Pedro, or Fercia) would interpret it for the participant. The participant's answer would then be interpreted from Q'eqchi' to English so that I could understand and follow through with the next question. To ensure the accuracy of the participant's response, the recorded interview was then translated and transcribed verbatim by either Pedro or Tomas, usually one who was not present during the interview. These transcriptions include: my questions (in English as original); the collaborator's Q'eqchi' questions to the participant (interpreted in English from Q'eqchi'), the participant's response (translated from Q'eqchi'), and the collaborator's interpretation (in English as original). This approach allowed me to see how my questions were interpreted by the collaborator, and to see, in a fuller and more complete form, what the participant said in comparison to the collaborator's interpretation of their answer. I was also able to see how conversations among themselves came to influence certain answers. In this thesis, the quoted passages from interviews completed in Q'eqchi' derive from the participant's response as translated after the interview. In some cases, the verbatim was slightly edited (content that is marked in brackets) to clarify the meaning. Other than the *iloneleb'*, co-researchers, and others who wanted to remain known, I have assigned participants a pseudonym to protect their confidentiality and anonymity.

1.6 Analysis and Thesis Structure

The stories people tell to themselves and others are often co-produced in response to an inquiry (Riessman 2001), such as that from a researcher. My questions and the collaborator's interpretations shaped the participant's interview responses, and hence it has been important for me, in the analysis phase, to consider how I and others have come to influence these responses.

I began analysis by identifying four types of sickness cases: first, cases that were unfolding in the present; second, cases that happened in the past; third, cases where a family member was a primary caretaker; fourth, cases known to the participant from their extended family's experiences. General discussions about aspects relating to health care often also contained partial or specific cases. These distinctions helped me analyze the data, select particular cases during the writing phase, and develop hierarchies of therapeutic resort. The villager's stories provided a framework of care-seeking, which allowed for the possibility of mapping patients' treatment resort in response to a sickness episode. I only used fully described and complete case stories, totalling thirty-four sickness cases.⁹ These cases informed patients' and families' patterns of health care behaviour presented in Table 5.1, 5.2, 5.3, and 5.4 of Chapter Five.

In the analysis phase, I first re-read all the interviews and field notes and then eliminated five interviews that were more exploratory and less focused on the research questions. A majority of the interviews I did not use were those completed with Maya people from outside of Indian Creek. I classified my field notes using "comment" in Word, and I used NVivo to code the transcripts. I first applied holistic coding, "applying a single code to a large unit of data to capture a sense of the overall contents and the possible categories that may develop" (Miles, Huberman, and Saldaña 2014, 77). Some of these codes included "Q'eqchi' understanding of health," "effectiveness," "decision-making," and so on. From these, I then sub-coded, utilizing in vivo and descriptive coding. While in vivo coding uses the words of participants to code passages, descriptive coding assigns a more interpretive label to these passages (Miles, Huberman, and Saldaña 2014, 74). Accordingly, "Q'eqchi' understanding of health" was further divided into "ability," "absence of sickness," "care for self," "food," "happiness," and so on, where, for example, "ability" was a descriptive code, and "food" an in vivo one. Some sub-codes were further reduced to get to the essence of the many aspects involved in the code. This occurred when Q'eqchi' discussed the way they perceive practitioners' abilities according to their "knowledge," "technology," "specialization," and "skill." I also applied magnitude coding for specific data that involved some judgement or evaluation (Miles, Huberman, and Saldaña 2014, 80). This occurred,

⁹ In assessing which case stories were fully described and complete, I first looked at the relationship of the participant to the story; i.e. if they were the patient, a caretaker, or if they heard a story from a family member or friend about a patient. I prioritized direct experience (where the person experienced the full decision-making process including the actions taken – whether patient or caretaker) and, only in a handful of cases, I selected indirect experiences (stories the participant heard from others), specifically when there was enough context and detail surrounding the patient's decisions and treatment resort.

for example, with “treatment outcome” that was further coded as “not effective,” “cure,” “no cure,” “uncertainty.”

I then selected the holistic codes relevant to answering the questions (Schensul, Schensul, and LeCompte 1999, 54). For example, in answering the first research question – “How do patients and their families evaluate the effectiveness of an intervention and how does this affect their care-seeking?” – three domains (including all their sub-codes) “Q’eqchi’ understanding of health,” “Q’eqchi’ understanding of sickness,” and “effectiveness” were selected. I summarized the important components, including the themes, outcasts, and exemplary quotes or stories that substantiate a topic sentence. In some instances, villagers who were going through a sickness experience at the time I was there were able to provide additional information. In all, the stories selected were the ones that proved the most comprehensive and valuable to address the research question.

When I saw patterns emerging in the data, I started reading relevant literature to see what middle-range theoretical concepts have been used to describe similar patterns (see Schensul, Schensul, and LeCompte 1999, 15-16). The concepts which seemed to best define and explain patterns were selected to frame an understanding and portray the findings. This aided in the development of a “formative research model,” “a diagram that represents the initial relationships among elements or concepts with regard to the topic” (Schensul, Schensul, and LeCompte 1999, 23). In this step, I was able to identify “domains,” and unpack each into “factors,” “variables,” and “items” as different components of classification and explore how they fit together (Schensul, Schensul, and LeCompte 1999, 25, 52-54). This is a process of “operationalization,” alternating inductive and deductive reasoning, i.e. abduction (Schensul, Schensul, and LeCompte 1999, 51). “Ethnographic research is constructed recursively, that is, it begins with a set of connected ideas that undergoes continuous redefinition throughout the life of the study until the ideas are finalized and interpreted at the end” (Schensul, Schensul, and LeCompte 1999, 2). This ongoing process provided a more coherent organization, allowed me to see how themes fit together, aided in the identification of the most telling exemplars, and created the building blocks that explain a given social phenomenon. These steps led to the analysis presented in Chapter Two.

In answering the second research question – “How do patients and their families make decisions regarding therapeutic options?” – the same process was employed, but as the question entails more factors, I have presented the discussion in Chapters Three, Four, and Five.

The research questions, their most evocative themes, and their relevant theoretical frameworks have come to structure this thesis. This chapter has described the various health care alternatives available to the Q'eqchi' living in Indian Creek. It has also provided historical, political, economic, cultural, and social details that are furthered in the following chapters.

The next four chapters relate to health care behaviour. Chapter Two discusses what it means for the Q'eqchi' to be healthy and sick, and how they evaluate an intervention's effectiveness to explain how treatment outcomes shape their care-seeking. Chapter Three looks at the beliefs that guide patients' and their families' care-seeking, which includes how they judge a given practitioner's ability to cure, how they use practitioner's services, and their ideas of medicine's capability. Chapter Four presents the criteria that are used to select among available options. These encompass political-economic factors and individual factors such as available resources, social support, and the knowledge one has regarding sickness and its treatment. Chapter Five synthesizes all the information presented in the previous three chapters and presents patients' and their families' health care selection process. Each chapter contains a discussion to give meaning to the consequences of patients' and their families' behaviours and to compare these findings to health care practices, policies, or related literature. Chapter Six, the concluding chapter, reviews how the findings of each chapter relate to one another, highlights future areas of research and policy planning, and finally advocates for the importance of *iloneleb'* in the provisioning of health care to Q'eqchi' Maya communities.

Chapter 2: Commencing, Continuing, and Discontinuing an Intervention

Efficacy and effectiveness are singular, different ways to assess an intervention's outcome. While efficacy encompasses scientific aspects of a treatment's results, effectiveness includes empirical and subjective elements. This chapter does not consider whether or not Q'eqchi' Maya medicine is efficacious from a scientific perspective. Instead, it focuses on how the Q'eqchi' come to evaluate an intervention's effectiveness. Before considering this, it is necessary to establish what health means.

The World Health Organization (1948, 1) defines health as “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” Although this tautological definition includes subjective factors that affect an individual's health, anthropologist Neil Thin (2010, 33) critiques that “most institutions and texts relating to health and well-being still treat these concepts in a residualist way as the (hypothetical) absence of avoidable suffering or impairment.” He goes on to say that “most activity and policy under health and well-being rubrics is about ridding people of illness and avoidable suffering.” When health and well-being are simply considered as a lack of sickness and suffering, the underlying assumption is that all humans experience health and well-being in the same way. Consequently, government-proposed actions intend a limited welfare response, providing care for all people in the same singular manner. Contrary to a residualist approach, a constructivist approach recognizes health and well-being as constructs shaped by local understandings that vary cross-culturally (Lock and Scheper-Hughes 1996; Thin 2010, 33). People's testimonies about health often disclose ideas regarding well-being, broadly defined as an “optimal state for an individual, community, society, and the world as a whole” (Mathews and Izquierdo 2010, 5). In differentiating these two approaches, it is possible to show that biomedical and statistical measures of health and well-being (“objective” measures) may contradict a community's local perceptions of these (“subjective” measures) (e.g., Izquierdo 2005).

In 2008, the World Health Organization Commission on Social Determinants of Health released *Closing the Gaps in a Generation*, a report acknowledging that conditions of daily life and structural determinants are key drivers of health outcomes. Accordingly, social determinants of health cover fundamental needs, such as housing, food, waste management, and fair employment, as well as the hierarchical organization of populations (gender and ethnicity) according to income, education, and employment, among others. The Commission identifies a broad set of social determinants – a residualist approach – to globally address health inequities.

Although culture is considered as one of several determinants, the World Health Organization does not acknowledge a constructivist approach, such that communities themselves define the determinants that affect their health. Medical epidemiologist Jaime Breilh advocates for “social determination of health.” Unlike social determinants of health approach which paradigmatically understands health as an object of reality, the social determination of health approach considers health as a subjective concept (Breilh 2013, slide 56) influenced by people’s cosmovision or worldview and entrenched within power dynamics (Breilh, Spiegel, and Yassi 2014, 6 and 13). It is only when individuals themselves define the determinants which affect their health and well-being, that the reduction of health inequities will be realized (Aneiros Fernandez 2014; Knibb-Lamouche 2013; Spiegel and Breilh 2017).

Indigenous people’s interpretation of their experience provides a commentary on the determinants of their health and well-being (Nettleton, Napolitano, and Stephens 2007). Worldwide, Indigenous communities tend to have a kin-based social structure that supports the sharing of resources (Robbins 2014). This practice roots Indigenous people’s experience of well-being in aspects of kin groupings, social networks, land, and cultural values distinct from the dominating Western worldview (Mathews and Izquierdo 2010, 252). Although the World Health Organization report (2008, 36, 157) briefly highlights the unique standing of Indigenous communities and the necessity to consider them as separate from other populations, nearly all of the present Belizean health reports, including the Ministry of Health and Pan American Health Organization’s *2014-2024 Health Sector Strategic Plan*, consider the social determinants of health from a residualist perspective, treating all Belizeans’ determinants in the same way.

In this chapter, I define how the Q’eqchi’ understand what it means to be healthy, to be sick, and how they evaluate an intervention’s effectiveness through a constructivist approach. I show how these understandings influence their care-seeking. I argue that for patients and their families, health is primarily about well-being, and the feeling of being unwell or well influences their commencement, continuation, and discontinuation of a therapeutic intervention. I also contend that the *2014-2024 Health Sector Strategic Plan* will fail to meaningfully advance health equity in Maya communities by not considering a constructivist approach of health and well-being.

2.1 A Q'eqchi' Understanding of Health as Well-Being

In defining health, Amalia, a fit young mother of three, states that “Being healthy is being able to do my work without a problem or difficulties.” Pablo, an elder with grandchildren who is currently experiencing a sickness, uses the same indicator to define health. “[I understand health] when I am able to work and do my daily activities. It is a time for me to enjoy doing my work, to work hard to keep maintaining my family,” Pablo explains. Men especially speak about being on the farm or having a paid job to provide for their family, whereas women mostly talk about taking care of their children, cleaning, cooking, and gardening. The Q'eqchi' understand health in the way sociologist Talcott Parsons (1964, 274) defines it, as a state of optimum capacity for effective role performance. Anthropologist Thomas Weisner (2010, 229) particularizes the performance of everyday activities as the experience of well-being, arguing that “sustainability of life in a family or community grounds well-being in everyday activities, [and] includes the goals and moral direction of life.” In this way, Q'eqchi' villagers conceptualize both health and well-being as a state of physical, social, and economic ability that contributes to culturally valued work and helps sustain one's family and community.

Some Q'eqchi' also reference an emotional component to health. Tomas, a middle-aged father of four, tells me that “To be healthy is being able to move around, feeling happy, conversing with people, having nothing to worry about.” Similarly, Maria, a middle-aged mother of seven, shares that health is about “Keeping busy to feel happy.” Both link the experience of well-being with the emotional state of happiness.

From a Q'eqchi' Maya medical perspective, *iloneleb'* conceptualize health as both an absence of sickness and the experience of happiness, in which sickness and happiness are understood as mutually exclusive states (Waldram 2020, 96). Their idea of health more broadly encompasses vital aspects such as the “an ability to work,” “being part of a community,” “being seen,” “being socially active and communicative,” “performing social roles in an open manner,” and “being happy” (Waldram 2020, 92-93). Taken together, these aspects again closely resemble Weisner's (2010, 229) definition of well-being as an “engaged participation in everyday cultural activities that are deemed desirable by a community, and the psychological experiences produced by such engagement.”

In discussing aspects of health, villagers also speak of food as an essential component. “I keep myself healthy by eating healthy food like corn. Right now, we eat rice and flour that is less

healthy,” shares Teodora. Her sentiment is one that resonates with many community members. The Q’eqchi’ mention that eating “corn,” “food from the bush like callaloo or other vegetables,” and “jipijapa and tortilla” are good for one’s health, while “not eating healthy food,” including “rice,” “flour,” “junk food like [food] in cans” that “we don’t know what they are made of,” can make someone sick. There is an overall sense, then, that traditional food, which includes locally grown plants, fruits and vegetables, raised, bought or hunted animals, and made into Maya recipes passed down across generations, is healthier than imported food. Biomedical ideas of nutrition could inform this, but implicitly the practices around making food constitute the villagers’ everyday cultural activities.

Traditional food involves a performance of valued Q’eqchi’ roles and more kin working collectively, which is not as prominent with imported food. For example, when women make flour tortillas instead of corn tortillas, they walk a few minutes to the shop to buy the flour, they then knead it, form it into a tortilla, and place it on the *comal* (griddle) to cook. A single woman could complete this task, although their female children or extended family members often help. The process of making corn tortillas, on the other hand, involves more people and time. It starts with a group of male family members travelling about an hour by foot to their shared plantation to harvest corn. They check on it every two weeks, and when it has matured, they return with their families to collect a bunch in large stitched bags. When the corn makes it home, the women soak some in water overnight to soften it, and the following day they prepare the *masa* (cornmeal) and then shape and cook the tortillas. Making a traditional meal requires a group of female and male kin to coordinate their roles to provide for themselves and others. Preparing a traditional meal speaks to Waldram’s (2020, 92) understanding of Q’eqchi’ well-being as “both public demeanor and the ability to meet one’s obligations,” wherein a larger group of family members are present, conversing, and productively working towards sustaining their plantation, relationships, and community.

Each household produces different sets of traditional foodstuff. This contributes to creating bonds of reciprocity. When Fercia visits relatives, she is often gifted ripe produce from their garden or plantation to bring home. Fercia returns the favour, gifting friends and family mangoes from her tree. Buying imported food lacks this mutual exchange. Packaged food comes in small quantities for single household consumption, whereas traditional food ripens within a specific timeframe, creating an abundance that a single household cannot consume alone. Households also

raise animals, and often men will plan hunting excursions. With the successful kill of an animal, a family will prepare it and invite relatives to a feast. Exchanging foodstuff maintains social and economic roles and reinforces relationships among families, which impacts people's sense of well-being (Abranches 2014; Adelson 2000; Baines 2018). Thus, when Q'eqchi' acknowledge that traditional food is healthier, they are not solely thinking about nutrition and its impact on the body; instead there is an underlying sense of it contributing to their relationships and everyday cultural activities, and hence, their well-being.

Ultimately, when villagers speak about health, they do so within the broader concept of well-being, and this is also evident in how they understand sickness.

2.2 A Q'eqchi' Understanding of Sickness

In defining sickness, the Q'eqchi' understand its onset primarily in relation to human agency, and secondarily in relation to spiritual or supernatural beings, or natural causes (see also Rivers 2001 [1924]). First, they ascribe sickness to not taking proper precautions against environmental harms. For example, not washing one's hands, being out in the cold rain without appropriate attire, or getting scared by someone or something. Villagers also ascribe sickness to punishment. Sickness may be seen as a punishment for not taking care of oneself. This includes not eating healthy food or having bad habits, such as working or drinking too much. Sickness may also be sent as a punishment to someone from God or from another person by way of supernatural forces. In Q'eqchi' culture, behaving in a socially acceptable manner is greatly valued. If someone disrespects another, is ill-behaved, or has more material wealth than others, it is negatively seen. It is common to hear that a *tuul* (witch man) practices *obeah* (witchcraft), and that a spiteful villager may pay a *tuul* to send someone a sickness through *obeah*. Second, some villagers mention that sickness may inevitably come from a natural or supernatural cause independent of human agency. This could be because one was at the wrong place at the wrong time, or it may be a part of their *mataan* (destiny).

Sickness appears through constellations of symptoms and signs. Symptoms are felt (subjective) indicators of a disorder only experienced by the patient. Signs are physical and behavioural (objective) indicators of a disorder, noticed by the patient and others. "I know I get sick when I am not feeling good. When I feel like [I'm] having headaches, I feel sleepy, and I just want to be in a hammock," Fercia explains. Carlo, a grandfather in his sixties, expresses a similar

sentiment. “You would feel it [when you are sick]. You would not feel good and you would not want to do anything.” Symptoms of not feeling well, feeling weak, experiencing discomfort, as well as signs of inactivity, are indicators for recognizing when one is sick.

Villagers may experience signs and symptoms of a health disorder in a myriad of ways. While some may need to rest, others may continue to fulfill their responsibilities. Pablo, who is confronting a serious sickness that has left him bed-ridden for about two weeks, explains, “[In my youth] I didn’t know what sickness was [because] fever and cold were no kind of sickness to me. I didn’t stay at home on a bed to feel these problems, but [I] continued to work.” He takes a pause and then elaborates. “Sickness is something that will have you in bed for weeks, months, or even years.” In Pablo’s case, sickness affects the performance of daily activities usually completed with ease, and therefore it is understood in the way anthropologist Allan Young (1982, 270) defines it as “the process through which worrisome behavioural and biological signs [...] are given socially recognizable meaning.” Sickness does not refer to illness – the psychological perception of a health disorder – nor disease – the physiological and physical manifestation of a health disorder. Rather, sickness is about how one’s personal experience of a health disorder is made meaningful through a social process. While Fercia and Carlo allude to this by giving attention to behavioural signs such as “wanting to sleep” and “not wanting to do anything,” Pablo, who has suffered from a more severe sickness, elaborates even further by stating that sickness is shown through social and economic signs of inability to fulfill obligations. Therefore, sickness is a disruption in one’s well-being.

Villagers’ choice to self-treat or consult a medical expert also reinforces that sickness is the absence of well-being. Mr. Baki, an *ilonel* in his mid-eighties, has been sick with stomach and leg pains for the past three years. Six months ago, he broke his hip from a fall. Since then, he has been immobile, unable to lift his torso off an unpadded wooden panel bed without the help of a rope hanging from the ceiling. On the days he knows visitors are coming, he always makes an effort, with the assistance of his wife, to groom his hair and dress in a button-up shirt and slacks. One afternoon, when Tomas and I arrive at his home, he is sitting on his bed, waiting for us to aid him onto a plastic chair. We exchange a few cordial updates, and considering Mr. Baki’s small amount of energy, I swiftly prop my hat on a turned-over five-gallon pail and place the recorder on top to start our interview. I catch a glimpse of the deep quarter-sized open sore on the outer side of Mr. Baki’s swollen left foot. Our topic today is about his experience with his sickness. Mr. Baki

tells me that when his sickness first started, he treated it with bush medicine from his garden. But the disorder worsened. “I couldn’t work anymore, that is why I decided to go and see an *ilonel*.” This behaviour is in contrast to Amalia, who sometimes suffers from recurring back pain. Whenever the pain returns, she takes Tylenol to alleviate it. When I ask her why she has not seen a doctor, she states, “I don’t feel the urgency,” because symptom relief allows her to maintain her daily activities. This indication of urgency, as seen with Mr. Baki, happens when there is a disruption in one’s ability to perform their responsibilities for an extended period.

Since Q’eqchi’ way of life is public, everyone knows when someone is sick because they are not present with their family to help with tasks, nor wandering about in the village. Community members eventually notice or hear from someone that a person is sick. In such a way, the sick individual adopts the “sick role” (Parsons 1991 [1958]), becoming exempt from fulfilling their roles and obligations, and must make every effort to get better. When the sick person starts visiting a practitioner for their disorder, they take on a patient role and, in many cases, it becomes the family’s duty to take care of them.

A sickness episode elicits a logical sequence of phases dedicated to the care-seeking process; after adopting the role of the sick person and seeking care, patients and their families evaluate the treatment (Suchman 1965; Chrisman 1977).

2.3 Evaluating and Negotiating the Effectiveness of an Intervention

Young (1976a, 7) argues that there are two ways in which therapeutic interventions are understood to work: they produce “expected” and “hoped-for results” in changing a sick condition “toward some more desirable state.” He explains that expectation and hope exist alongside one another, but are independent of each other in significant ways. Expectation refers to “what *will* happen regardless of whether or not the sick person’s situation has been improved” (Young 1976a, 7). “An established cure is *always able to work* in the sense that it meets the *expectations* of the sick person and his kin, that it produces certain results in a predictable way” (Young 1976a, 7). The example Young (1976a, 7) provides is the Amhara people’s treatment known as *setir* for complaints of “water in the knee.” *Setir*, which involves a healer massaging and cupping a patient, “always works in the sense that it produces dark blood.” In other words, expectation consists of the production of particular signs as an outcome intrinsic to a given intervention. Hope, on the other hand, refers to “what *should* happen” (Young 1976a, 7). “A cure *sometimes* works in the sense of fulfilling the

hopes or medical goals of the sick person and his kin; it sometimes restores the sick person to a condition of improved health” (Young 1976a, 7). In his example, *setir* only “sometimes works in the sense that the sick person rapidly improves and becomes fully ambulatory” (Young 1976a, 7). Thus, hope involves the change of signs and symptoms in the direction of improvement in the sickness condition.

Anthropologist and biologist Nina Etkin (1988, 302) broadens Young’s conception of hoped-for results by differentiating between “proximate effect” and “ultimate outcome.” She explains that effectiveness “might mean a number of things, ranging from full symptom remission to some physical sign which is interpreted as a requisite proximate effect that indicates that the curing/healing process is under way and can be expected to proceed to the ultimate outcome—i.e. restoration of health with, perhaps, other proximate effects anticipated along the way.” In this way, proximate effects may incorporate either or both of Young’s conception of expectation (change in signs) and hope (improvement), and the ultimate outcome specifically deals with what everyone hopes to achieve from an intervention (a cure). Etkin, unlike Young, clearly traces an intricate relationship between expectation and hope: proximate effects lead to the expectation of the ultimate outcome. In other words, one’s hope of a future cure is grounded in the expectation of specific outcomes over a given timeframe.

Early one morning, Fercia and I meet in Big Falls at Mr. Baki’s house. We bring the family a few household necessities and chat for a while. Leaving his home, we walk towards the bus stop located right in front of the Big Falls clinic. Fercia tells me, “I am going to go for a check-up. I have been feeling very dizzy and weak the last few days.” Knowing her history with diabetes and concerned for her well-being, I suggest keeping her company. The nurse checks her glucose level; it is at 500, so high that it requires immediate attention. She leaves the examination room and quickly returns to inject insulin and rehydrate Fercia with two bags of saline. “If your level does not reach below 300 [which is still a high amount], we are going to have to send you by ambulance to the Punta Gorda hospital,” she says. While Fercia and I wait in the cramped, stuffy room for the treatment to take effect, she lifts her head from the examination table and looks at me who sitting in a moulded plastic seat right by her feet. “How much will my sugar lower?” she wonders aloud. In asking this, Fercia expects that the intervention’s outcome will lead to the production of a given sign, in this case, a reduced glucose count. While waiting for the doctor to pronounce the final result, several times, Fercia asks me to text her husband and children to share with them the

smallest of updates. She recounts a previous experience when she was rushed to the hospital because of the same problem, and she expresses concern about being sent there again. Since her husband is working in a remote area for the weekend, she worries about her five children and where they may have to go if she is hospitalized. While the treatment will decrease her glucose levels, Fercia hopes that it reduces her levels *enough* to feel better and return home.

Upon a correct diagnosis and treatment, a given intervention will usually produce physiological and behavioural outcomes that are expected by the *ilonel* or physician. Waldram (2015, 292) explains that while doctors and *iloneleb*’ “speak two languages – everyday and medical – the patients tend to be familiar only with the former.” In particular, practitioners have specific knowledge concerning the defining features of sicknesses, for it is necessary to the diagnosis and treatment process (Cassell 1997; Waldram 2020). These separate languages relate to what anthropologist Roy D’Andrade (1976, 177) refers to as distinctive and connotative features: the former to “attributes which make up the necessary and sufficient conditions for membership in a class,” and the latter to “attributes which are found in association with the members of a class, but which are not criteria for the definition of the class.” Practitioners must analyze distinctive features of a sickness as it is essential to cure the patient. However, laypeople are not concerned with distinctive features of a sickness, rather, they value the connotative features which include the conditions and consequences a sickness produces (D’Andrade 1976).

A practitioner’s medical language, therefore, includes the intervention’s expected results, but patients oftentimes do not know this unless they are made aware of it. Fercia would have been unaware of the expected change in her glucose levels if the nurse had not informed her. Only when medical experts (and sometimes people who have already undergone a given sickness and its treatment) tell the patient the expected signs of change, do they become incorporated into patients’ and caretakers’ assessment. Discussing is a form of negotiation between patient and care provider in order to reach an agreement regarding the expectation of a treatment’s intended outcome. Without an agreement about the results of an intervention, each will assess the outcome according to their own criteria, causing a possible discrepancy in their evaluations of the treatment’s effectiveness.

2.3.1 Practitioners' Evaluations

Young's (1976a) work suggests that therapeutic interventions work, in the sense that they give rise to empirical proof, such as *setir* always producing dark blood. His argument addresses why people continue to use Indigenous medical systems, but does not discuss the subject of expectations within biomedicine. Biomedicine also engages with empirical proofs, such as an insulin injection that typically lowers one's glucose level. Waldram and Hatala (2014, 9-10) explain that both Q'eqchi' Maya and Western medicine work through the invocation of latent and manifest empirical knowledge. Latent empiricism refers to "the existing, collectively-held medical knowledge pertaining to diagnoses or treatment and the standard against which clinical efficacy is judged." This is the core of a medical system depicted through oral and written text, and it is within this body of knowledge that practitioners learn of a treatment's expected outcome. Practitioners are trained to detect outcomes (physiological, physical, behavioural, or spiritual) not necessarily evident to laypeople. Waldram and Hatala (2014) clarify that practitioners do not use latent knowledge to evaluate the treatment's effectiveness, but instead use manifest empiricism by applying, testing, and challenging the generalized latent knowledge in a particular case. Thus, a practitioner compares the treatment's produced results (manifest empiricism) with the expected outcomes that should have been brought about (latent empiricism).

It is, therefore, within the clinical practice that practitioners evaluate a given intervention's effectiveness. Physician Eric Cassell (1997, 58-59, 92) documents that doctors evaluate sickness and treatment effectiveness through their observations of medical examinations and the patient's expressed feelings of effectiveness. *Ilonaleb'* evaluate this through the pulse, *jilok* (spiritual massage), and prayer. Waldram (2020, 204) explains that *ilonaleb'* use a combination of the three methods to diagnose and assess if any sickness remains. Of the three, pulsing is the barometer for assessing effectiveness and prognosis. "We will feel it in the pulse that it's flowing normally, that is when we would stop," explains Mr. Choc. Despite bodily markers providing a measure of effectiveness, a patient's validation is also necessary. "We end the treatment when they [the patient] say they feel okay and are not feeling sick anymore," he continues. *Ilonaleb'* value a patient's self-report of symptom relief alongside their observations of noticeable changes in symptoms and physical and behavioural signs (Waldram 2020, 203). In both Q'eqchi' Maya and Western medical systems, practitioners evaluate their treatment's effectiveness in accordance with

their knowledge and technology (discussed in the following chapter), as well as their patients' and others' validations.

Both Q'eqchi' Maya and Western medical systems are intended to work through restorative processes, where the conception of effectiveness is closely coupled to a "cure" (Waldram 2013; Waldram 2020). Although *iloneleb'* and doctors understand health within the broader framework of well-being, both focus primarily on removing the disease or infirmity (Waldram 2013; Waldram 2020). Hence, both systems function in similar ways. Waldram (2015, 293) describes the characteristics they share: first, treatment sessions are relatively short since their primary goal is to restore health; second, patient interviews and therapeutic narratives are not necessarily solicited, and most of the diagnostic information is gained through technical means; third, the communication between the practitioner and patient is limited by the technical aspects of the encounter. Taken together, despite practitioners considering patients' and others' validation of effectiveness, their assessment is based mostly on their knowledge, technology, and ability to find the source of sickness and track its elimination throughout treatment to ensure its cure.

2.3.2 Patient and Family Evaluations

Patients, unlike practitioners, do not primarily assess an intervention's effectiveness in terms of expected results, but rather assess it from its ability to produce hoped-for results, as seen with Fercia. Young (1979, 79) argues that "laymen and other non-professionals [...] while working within the Western medical system, tend to rely on empirical and symbolic standards for evaluating their prophylactic and therapeutic practices." Empirical proof is "confirmed through events in the material world and explained by coherent sets of ideas" (Young 1979, 68). Thus, since patients rely in part on empirical proof, it is inevitable that they evaluate both Q'eqchi' Maya and Western medical systems using the same criteria. I, therefore, extend Young's (1976a, 7) argument and show that Q'eqchi' patients and their families emphasize and act on the hope for an intervention (regardless of the medical system) to meet the requirement of improving their condition to a more desirable state.

Teresa's sickness experience exemplifies this kind of evaluation. I saw Teresa a couple of times when spending time with Fercia. She would often pass by her sister-in-law's house to check up on her, spend some time, and bring food. In her late forties, she suffered from high fever, chills, and constant sharp stomach and back pain for two months. Throughout this time, I had seen her in

terrible conditions – laying in a hammock in a fetal position, unable to open her eyes and speaking incoherently – and in marginally better conditions – having little energy to do anything other than conversing. Near the end of my time in Belize, Teresa was feeling better, and Fercia proposed for me to have an interview with her. During our meeting, Teresa tells me that the onset of the sickness was rapid, and her family decided within a few hours to drive her to the Punta Gorda hospital. She shares her experience:

We were trying to tell [the medical staff] that I am having fever, vomiting, and swelling. They didn't treat it! They didn't! Yes, they gave me some injection, they gave me medicine. When my daughter told them that I am having fever, they gave me medicine, and they said they are treating the infection, but I felt the same! It didn't go down. All my body was swelling, swelling. So that's why I signed the [hospital release] paper, and I came home.

The medical staff failed to consider Teresa's and her family's assessment of the intervention. They also did not explain why the fever, vomiting, and swelling did not change. It is possible that the medical staff evaluated the treatment's effectiveness based on the expected outcome that the injection would soon reverse the infection. However, Teresa evaluated the treatment according to the hoped-for betterment in signs and symptoms. She and her family chose to discontinue the treatment since it did not fulfill their hoped-for results within an acceptable timeframe.

Patients and their families also describe similar comportment with *iloneleb'*. Like physicians, *iloneleb'* do not talk much during treatments, and they do not share much information with their patients (Waldram 2013, 201). In the absence of negotiation, patients and their families may be left unaware of what to expect and will then evaluate the treatment in their own terms. However, an advantage *iloneleb'* have over doctors is that many of them treat the patient at home and in the case of a severe sickness they stay there for several days. This dedicated treatment benefits the patient's and the family's adherence to the treatment prescribed.

In contrast to the medical staff's evaluation of expected signs, Teresa's daughter, Faustina, like her mother, monitored the fever and hoped for it to subside. I ask Teresa how she knew she was getting better after the treatment with the *ilonel*. Faustina, who up until I asked that question had been quiet, jumps into the conversation before her mother even has the chance to answer. "She get the appetite, she starts to eat!" she exclaims. Faustina's eagerness to include her evaluation suggests the important role of participating in determining the intervention's effectiveness. The caretaker who is actively monitoring the sick person's condition may notice a change in signs more

quickly than the patient enduring the disorder. Family members, unless they have experience with the signs a particular treatment will produce, usually side with the patient. Thus, while patients and medical experts may have conflicting assessments of the treatment's outcome, patients and their family members usually have a similar assessment since they essentially evaluate it according to hoped-for results.

Hoping for Improvement

In the case just discussed, Teresa and her family anticipated that an intervention would alter or lessen signs and symptoms in a way that allowed for the fever and swelling to decrease, and for Teresa to feel better. In evaluating an effective intervention, many Q'eqchi' express that "I can feel that the treatment has worked," and further allude to changes in the symptoms like having their "pains go away," they "do not feel weak anymore," and they "regain appetite." They also express changes in physical and behavioural signs, such as seeing "sores go down," being able to "eat again," and "not acting crazy anymore." The patient and their family evaluate an intervention as being effective when there is a positive change in symptoms and physical and behavioural signs, in other words, proximate effects.

Improvement means sufficient signs and symptoms should change in a way that shows promise towards their elimination. Teresa continues her story:

[After the hospital] I came home, and my husband get an *ilonel*. I drink the medicine, that's how my belly [the swelling] gone down, but it didn't help me as the way how I want it because the fever got worse. [So, we] went to Hillside [clinic], they said that I'm having a kidney infection and I have to [return to] the hospital for a week! My son said that he doesn't want me to go to the hospital again, so my family took me to the private doctor. From then, she [the doctor] gave me some medicine, it helped [with the fever] a little, but it didn't go down.

Teresa and her family shifted between treatment options to find one that would help in the way they desired. In the first intervention, the *ilonel* decreased the swelling, but the fever worsened. It seems that a positive change in one indicator is not necessarily enough when another worsens. In the second intervention, the private physician reduced the fever but not enough. Thus, to evaluate a treatment as being effective, there seems to be a threshold of positive change toward the elimination of the majority or of all signs and symptoms.

The timing of these changes is also essential in the evaluation. The Q'eqchi' judge effectiveness positively when the patient's condition improves within a few days, if not

immediately. Five days after Teresa was hospitalized, she and her family decided to sign the release paper for her to return home and try a new intervention. Many villagers give a similar timeline of about two to five days as a waiting period for positive changes. Pedro tells me that “Within a couple of days, or at the very beginning, whenever treatment starts, normally the patient will feel the difference in his or her body because they would feel relief.” Seeing changes in signs and symptoms in a quick timeframe signals that the elimination of pathology is likely.

Hoping for a Cure

Patients and their families also evaluate an intervention as being effective when the patient returns to their social roles. Fercia shares with me that a few years back, her now ten-year-old daughter developed a bump near her abdomen and had a high fever. After using a home remedy that did not better the condition, Fercia then took her mother’s advice to seek the services of an *ilonel*. I ask Fercia how she knew the intervention was effective, and she states, “The bump disappeared. So that’s when I got to know that.” She pauses for a moment and then continues, “And because every day [before] she was sleeping, sleeping, sleeping, and she was just [then] playing around on the ground. From there, I noticed that she got better.” Here, Fercia points to the relationship between a change in the physical sign of the bump, and the concomitant return to the performance of a child’s usual social role of playing.

The outcome for adults is different than that of children because of their socioeconomic roles. Aurora, a mother of eight in her mid-fifties, demonstrates this in her narrative about her nineteen-year-old son’s episode with a sickness. Two years ago, skin sores developed on his body, and he showed behavioural problems, such as not spending time with family. Once, in the middle of the night, he started acting crazy and ran away from home into the forest. Some family members chased him down, tied him up, and carried him back. At home, he started vomiting and went blind for several hours. “I took him to the hospital, but they sent him back home because they didn’t find nothing wrong with him,” recounts Aurora. “Seeing that they couldn’t deal with it, I took him to an *ilonel*. If we didn’t, we could have lost him a long time ago.” Aurora explains, “He did not experience anything else [since the treatment], he is happy, he goes to the farm, nothing happening to him.” Three observations support her evaluation: her son has not been sick with this disorder since, he experienced positive emotions, and he returned to his roles. Aurora’s evaluation of

effectiveness, anchored in the Q'eqchi' notion of well-being, reflects an inherent relationship between one's return to psychosocial functioning and the elimination of sickness.

Psychosocial functioning is “a person's ability to perform the activities of daily living and to engage in relationships with other people in ways that are gratifying to him and others, and that meets the demands of the community in which the individual lives” (Mehta, Kumar Mittal, and Kumar Swami 2014, 1). Positive psychological experiences produced by community engagement are, then, a core element of well-being (Weisner 2010). Waldram (2013, 194) explains that when a health care system's focus is restorative, effectiveness is assessed “in terms of the extent to which the pathological condition is eliminated, or functioning returned, and the patient restored to the prepathology state as if there had been no problem in the first place.” Waldram (2013, 194) is accurate in his assessment that restorative treatment “may involve the elimination of a pathology, but it may also involve the restoration of the psychosocial functioning of the individual.” From Fercia and Aurora's evaluations, a successful treatment must change *both* prepathological states: it must eliminate the disorder and it must return patient's psychosocial functioning.

Patients enduring a disorder express their hope in a treatment to cure. Mr. Baki, after each treatment session, would mention that he was able to have a good night's sleep, that he felt more strength to shake his legs and lift himself a little bit higher while holding on to the rope, and that his legs would feel a cool sensation of relief after the application of the medication. However, such a positive response is not enough. During a fourth treatment session, Mr. Baki speaks in Q'eqchi' to Mr. Augustino and hands over a plastic bag. “Mr. Baki just wants to get cured so he can walk again,” Mr. Augustino translates. “I told him it would be a long treatment time before getting there because he is facing a serious sickness.” Mr. Augustino pulls out two white taper candles from the bag and performs motions of the cross on various sections of Mr. Baki's body while saying a prayer. This is a practice I have often seen. The candles are taken to church in the evening by Mr. Baki's wife to light at the altar. During our interview at a later time, Mr. Baki, with a sorrow look in his eyes, says “[A healthy person] would feel it, be happy, move around easily, and be active... But right now, I can't do anything else.” His continuous hope for a quicker return to full mobility is not simply about regaining physical ability, but rather a crucial aspect for regaining his psychosocial functioning. Despite Mr. Baki evaluating the treatment as having improved his condition, he does not consider it cured. Waldram (2013, 202) illuminates that in restorative healing a cure is signalled when the physician-patient relationship changes such that the patient

no longer requires healing nor the help of a medical expert or support system. Mr. Baki would only proclaim to be cured when he would be able to walk again and return to his work. From the patient and their caretaker's perspective, the end of treatment-seeking only happens when the patient's prepathological psychosocial functioning returns, and they feel a sense of well-being once again.

2.4 Discussion

Like the World Health Organization, the Q'eqchi' do not necessarily conceptualize health as solely a physical state, but rather about well-being. Q'eqchi' well-being encompasses the physical, mental, social, and economic ability to do their work, to be and feel productive, and to engage with others so that together they can contribute to providing for their family and community. Accomplishing these tasks and sustaining these relationships comes with the emotional experience of happiness.

The Belize Ministry of Health and Pan American Health Organization designed the *2014-2024 Health Services Strategic Plan* in the framework of World Health Organization's proposals. The Strategic Plan mentions that "the government of Belize is committed to the health and well-being of the people of Belize" (Belize Ministry of Health and Pan American Health Organization 2014, 1) and outlines objectives to better their health. When defining health and well-being, the Strategic Plan uses a residualist approach rather than a constructivist one, simply mentioning the concepts without further clarification and assuming them as being the same for every Belizean. By not defining well-being from a Q'eqchi' Maya perspective, the Strategic Plan misses the opportunity to discuss the objectives in a way that considers and prioritizes their values and ways of living. For example, the Strategic Plan (2014, 34) addresses the determinant of diet by stating that "Despite an abundance of cultivable land, there is a high dependence on the importation of food. Belizean people face several nutritional problems including high intake of fatty, sugary and salty foods, unbalanced diets, low fruit and vegetable consumption, and overall poor food choices." Their solution to combat this includes the launch of the *Belize Food Based Dietary Guidelines*, which depicts geographically and culturally-based food groups that should be consumed daily. When I was with Fercia at the Big Falls clinic for her diabetes incident, the doctor told her she should no longer eat flour tortillas, only whole wheat flour or corn. Whole wheat flour is expensive, so the family decided to make corn tortillas more often. Her husband's work schedule, however, limited their trips to the farm and resulted in her continuing to eat flour tortillas. The preventative

measure of a nutritional guide is helpful only insofar as people can acquire specified foods. If the Strategic Plan had taken into consideration the communal and ecological characteristics of Q'eqchi' well-being, as well as the systemic factors that drive disparities, they could have offered another solution (along with the nutritional guidelines), such as finding creative ways to sustain and enrich local communities farming practices.

The Strategic Plan also aims to improve the availability and accessibility of primary health care. Understanding how Q'eqchi' conceptualize well-being and evaluate effectiveness is a critical factor in determining when patients access and terminate an intervention. People do not necessarily access services with the onset or presence of signs and symptoms (cf. Cassell 1997, 35; Hunt et al. 1989); instead, they only do so when these affect their daily practices. The Q'eqchi' usually seek the services of a practitioner when there is a disruption in their sense of well-being for an extended period, and after having self-treated. This means that they often endure considerable pain so long as they can remain active, social, and productive. In delaying treatment, it becomes more likely for a disorder to progress to a state that may be more challenging to treat and may involve more complex consequences for a patient and their family.

Belize is medically plural, meaning that patients and caretakers can select from several treatment options. Their stories about treatment successes and failures show that, regardless of the type of care sought, they evaluate an intervention as being effective at two different points. They assess the intervention as being positive when signs and symptoms improve, but they evaluate a cure when the patient's psychosocial functioning returns. Thus, they continue the intervention if it shows improvement, and they terminate it upon a cure, when the patient returns to their sense of well-being. When a given intervention does not show positive changes in signs and symptoms within a couple of days, patients and their caretakers lose hope in that treatment and discontinue it. While villagers evaluate an intervention according to hoped-for results, *iloneleb'* and doctors evaluate it primarily according to expected results. The practitioner has an opportunity to clarify the expected results of a given intervention, which may help the patient and their family renegotiate the treatment's outcome. An inadequate discussion regarding expected and hoped-for results compels the patient and caretakers to no longer adhere to a practitioner's instructions.

The next chapter explores the medically plural landscape of Belize, and Q'eqchi' people's evaluation and understanding about medicine which further challenges treatment adherence.

Chapter 3: Beliefs as Knowledge that Guide Decision-Making

Belief continues to be a central concern in anthropological, psychological, and public health research topics regarding health care behaviour (Good 1994). The term “belief,” however, calls into question the credibility of an account. Referencing Wilfred Cantwell Smith, a historian of religion, Good (1994) shows that the etymology of belief has changed over time. Prior to the nineteenth century, belief equated to knowledge. It was only with the rise of scientific evidence that belief “had come to connote doubt, and today it suggests outright error or falsehood” (Good 1994, 17). For generations, the dominant Western doctrine made empirical proof secondary to scientific proof. Yet empiricism “stands as perhaps the original means of knowing over the course of human development” (Waldrum 2020, 26). In the context of Indigenous medicine, practitioners’ knowledge and practice, studied by Westerners, became overwhelmingly classified as belief instead of knowledge (Good 1994; Waldrum 2020). But since the arrival of postmodernism, anthropologists no longer privilege scientific epistemology as the single way of knowing. Instead, what is encompassed in one’s worldview is considered knowledge gained from direct observation and passed-down traditional teachings, of which both stem from empiricism. Likewise, people’s medical beliefs, argues Waldrum (2020, 25), are a product of empiricism and knowledge-based practices.

A plethora of research has focused on beliefs about the sickness experience and how these are shaped by medical sectors (e.g., Kleinman 1980), how they impact treatment selection (e.g., Kleinman 1980; Nichter 1980; Romanucci-Schwartz 1969; Young and Garro 1981), and how they influence adherence (e.g., Fadiman 1997). Research has shown that people’s knowledge of the nature and etiology of sickness and the appropriate intervention adopted vary across cultures. Overall, a recurring pattern in the research suggests that non-Western people attribute disorders to causes beyond those proposed by Western biomedical ideologies. As a result, disorders are often classified according to treatability by biomedicine or traditional medicine. However, there is sometimes overlap as to which sicknesses each medical system can treat, consequently blurring this dualistic classification (Garro 1990).

Beliefs also encompass other aspects of health care, such as people’s understanding regarding an intervention’s and a practitioner’s ability to cure (Young and Garro 1981), as well as medicine’s power to cure (Delvecchio Good 2007), and risks associated with certain health care choices. This thesis does not consider an individual’s belief, for example how one’s understanding

of a given medical system influences the use of other therapeutic alternatives. Rather, it captures the broader culturally-shared knowledge of Q'eqchi' villagers in Indian Creek.

In this chapter, I outline the factors that Q'eqchi' use in judging interventions and practitioners. I show that while both Q'eqchi' and Western medical systems are understood as being able to cure, they vary in the kinds of sicknesses they are believed to cure. Patients and their families identify some interventions and practitioners as being more probable in their likelihood to cure. There is an underlying understanding among Q'eqchi' that a curative intervention exists. I argue that Q'eqchi' evaluate the likelihood of an intervention to cure sickness according to the practitioner's knowledge, technology, specialization, and skill. Patients and their families select one practitioner at a time, and, when necessary, exhaust all options until they find a cure.

3.1 Evaluating an Intervention's Likelihood to Cure

Interventions, and by extension practitioners, demonstrate “medical power” (Cassell 1997, 74) when the therapeutic or diagnostic act proves to have power over the forces of nature. The Q'eqchi' assess medical power insofar as it improves signs and symptoms and eventually leads to a cure. Anthropologists James Young and Linda Garro (1981, 180) identify that people evaluate an intervention according to its “generalized” and “relative” likelihood to cure. A generalized evaluation happens when ranking specific interventions or practitioners in terms of their power to cure sickness. For example, a generalized evaluation is that self-treatment is less likely to cure than treatment by a practitioner (see also Foster 1985). Self-treatment is a form of “first-aid,” describes Anignazio, a father of three in his late thirties and the son of a practitioner. Individuals treat themselves to cure the condition, or to relieve pain until they deem the services of a practitioner necessary. Self-treatment shows medical power when it cures non-serious sicknesses, while practitioners show greater medical power to cure more serious sicknesses.¹⁰ A relative evaluation, in contrast, happens when comparing medical systems according to their power to cure a given sickness. The following sections describe how the Q'eqchi' evaluate both the generalized and relative likelihood to cure of doctors (both public and private), *iloneleb'*, and pastors.

¹⁰ The following chapter further details sickness severity as a criterion that influences decision-making.

3.1.1 Practitioners' Ability to Cure

“My work is not different from a doctor,” explains Mr. Francisco. “Maybe doctors say it’s different because they were trained using technologies and other means in school. In our case, the information we were taught is not written or documented.” Doctors differ from *iloneleb’* in their professionalization: academic institutions set and examine the requirements for doctors’ qualifications, whereas *iloneleb’* knowledge comes originally from a master who sets these requirements. While the former leads to an accredited degree, the latter oral tradition is not bureaucratically recognized. Despite this distinction, Mr. Francisco emphasizes the resemblance between the work of *iloneleb’* and doctors, referring to their ethical obligation to care for patients, a function Waldram (2020) describes as “an imperative to cure.”

Many villagers express that “*iloneleb’* and doctors are the same.” Having lived at a time before biomedical services became accessible, Carlo shares that “In the past, we used traditional *iloneleb’* like [we use] the doctors [presently] [...] We recognized them as doctors.” Despite the change in the use of *iloneleb’*, a topic detailed in the following chapters, Carlo emphasizes that doctors and *iloneleb’* perform the same function: they are both practitioners within their community who are trained to diagnose and treat medical conditions.

The way Q’eqchi’ conceptualize practitioners’ relationship with God illustrates the function practitioners have in society. “God gave us bush doctors and doctors at the hospital,” proclaims Lina, a mother of eight in her early fifties. She further elaborates on this connection, “We live on earth, so we can’t reject doctors. God is good, *iloneleb’* are good, and doctors are good too. They are all good. [...] We have to believe in the decision we make.” Practitioners’ curative abilities are understood as a product of God’s creation. Therefore, it is Lina’s responsibility to value their work and seek their help when she or her family become sick. Echoing these sentiments, Estevan, a new dad in his mid-twenties, says, “I believe he [God] has supreme powers; he is the doctor above all doctors. They [God, *iloneleb’*, and doctors] do not have the same powers, I cannot put them together. For example, we depend on doctors to do an operation because *iloneleb’* cannot.” Estevan further explains, “But I know the three of them help; I don’t reject the hospital [or] the *iloneleb’*. There is nothing impossible [referring to the possibility of becoming cured], but we need to have enough faith.” While Lina faintly alludes to a hierarchical curative power between God and practitioners, Estevan and many other Q’eqchi’ convey it clearly and overtly. God’s omnipotence is the source of practitioners’ curative abilities and of the patients’

potential to become cured; fundamentally, God controls life and death (see also Foster and Anderson 1978, 76-77).

Despite the final outcome resting in God's hands, both Lina and Estevan emphasize the need to seek a practitioner's service and accept their help. Estevan, however, distinguishes between practitioners, stating that they "do not have the same powers." This distinction highlights the relative likelihood of the potential to cure associated with each medical system.

Patients and their families assess a practitioner's medical power according to the kind of sicknesses they cure. "Doctors and *iloneleb'* are both equal [in their ability to cure], it just depends on your sickness," clarifies Anignazio. This is a sentiment many Q'eqchi' share. According to Carlo, "Sometimes the doctors diagnose your sickness and treat it. [Other times] the doctor wouldn't find the type of sickness you are suffering, but the *iloneleb'* would. It's like a two-way thing [it works in both ways]." What they both suggest is that doctors and *iloneleb'* recognize and understand some sicknesses not known to the other. Furthermore, in some cases, care-seekers also visited a pastor to become cured.¹¹

The differentiation between practitioners' medical power can be ascribed to the variable knowledge they possess, their use of technology, and their overall specialization and skill.

Knowledge

The type of practitioner from which the Q'eqchi' seek care is based on their understanding that Western and Q'eqchi' Maya medical systems are somewhat distinct. Villagers report visiting doctors for conditions such as "fever," "cough," "earache," "breathing problems," "skin problems," "headache," "flu," and "diabetes." They visit *iloneleb'* for "jaundice," "snake bites," "stomach problems," "breathing problems," "skin problems," "diabetes," and conditions a doctor is not able to diagnose, usually "behavioural problems" and "problems regarding their spirit." This list makes up the most commonly mentioned conditions; it is not exhaustive of the conditions both medical systems can treat. This list, however, is sufficient in revealing two patterns: first, there is some overlap in the sicknesses that doctors and healers treat; second, only *iloneleb'* treat sicknesses caused by the supernatural.

¹¹ Although the Q'eqchi' sometimes use pastors, I am limited with the things I can say about them, as this has not been the main subject of research.

Understanding sickness causation as either natural or supernatural explains why *iloneleb'* and doctors treat both the same and different sicknesses. Scholars depict this as “naturalistic and personalistic etiologies” (Foster 1976), “internalizing and externalizing medical belief” (Young 1976b), and “natural and supernatural causation theories” (Murdock 1980). In applying these frameworks to Toledo’s available medical systems, biomedicine is categorized as naturalistic, internalizing, and natural, whereas Q’eqchi’ medicine is categorized as naturalistic and personalistic, internalizing and externalizing, and natural and supernatural. Furthermore, villagers sometimes seek a pastor’s service when they think the sickness is a product of God’s punishment for their wrongdoing. In this way, Christian folk medicine (except for the pastors who are also *iloneleb'*) is categorized as personalistic, externalizing, and supernatural.

Biomedicine and Q’eqchi’ medicine both comprise empirical knowledge concerning the physiological aspects of sickness (Waldram and Hatala 2014; Waldram 2020). Therefore, it is inevitable that *iloneleb'* identify, categorize, and treat some sicknesses also recognized in biomedicine.¹² They diverge in their gnostic knowledge regarding the supernatural world, a dichotomy which leads many Q’eqchi’ to accept that while doctors help, ultimately it is *iloneleb'* or pastors who can cure. Aurora explains, “You go to doctors for small [non-serious] sicknesses like diarrhea, fever, and vomiting. But for major [serious] sicknesses, only *iloneleb'* are able to cure you.” Mr. Emilio illuminates why this is the case, “Doctors only treat things that are on or in the body. They do not diagnose anything when the patient is suffering from problems in the blood, spirit and mind.”¹³ Doctors can only treat material conditions – the “natural” world – but not spiritual conditions – the “supernatural” world, whereas the *iloneleb'* can treat both.

In discerning natural and supernatural frameworks, the unique ontological realities of each medical system become evident. Waldram (2020, 23) redefines these into “material and meta/material knowledge,” an understanding that does not dichotomize the two ways of knowing, but instead makes them “inherently equal and interrelated ways of knowing the world (and are not fundamentally opposed) and are both substantially empirically based.” For the Q’eqchi’ these are not different social constructions of reality; rather, they are one and the same. Both the material

¹² Some of these sicknesses include the common cold, malaria, epilepsy, stomach ulcer, among others (see Waldram 2020, 141-153). The research at hand also includes kidney stones, diabetes, and limb paralysis.

¹³ Although doctors diagnose problems in the blood, and psychiatrists treat psychological disorders, Mr. Emilio conceptualizes blood and mind as spirits of their own kind (Waldram 2020, 78). Thus, when he speaks about blood and mind, it is in a spiritual sense and not a physiological one.

and the meta/material impact their lives. Waldram (2020, 23-4) explains that “the unknown is not necessarily ontologically unknowable mystery but rather the product of an epistemological technology that conceives of the currently unknown as theoretically capable of being known in some way at some point.” This means that conceptions of reality are products of the methods used, and that the epistemological technology confirms ontological truths of what is present in the world.¹⁴

Technology

Both medical systems use a vast array of technologies. According to Eric Cassell’s (1997, 63) definition, technology refers to “any tool employed in a craft” comprising the “modalities and instrumentalities that greatly extend the power of human action, sensation, or thought independently of their user.” In this sense, technology includes not only tools but techniques and medicines as well. Doctors use tools such as stethoscopes, scalpels, and radiographs. Some of their techniques include physiological exams and surgery, and their medicines are natural or synthetic and come in the form of syrups, tablets, and injections. *Iloneleb’* use tools such as eggs, *copal pom* (incense), and candles. Some of their techniques include pulsing, prayer, and *jilok* (spiritual massage).¹⁵ Their medicines come from their immediate surroundings, consisting mostly of plants prepared in a variety of ways, such as cold or hot teas for ingestion or baths, pastes for topical ointments, and fume for inhalation.

The diagnostic variation between doctors and *iloneleb’* is a product of their available medical technologies. “*Iloneleb’* use your pulse to tell you what sickness you have,” Anignazio clarifies, “Same when it comes to doctors, they run blood tests and other tests that *iloneleb’* don’t run.” Anignazio targets the particular medical technology available to each practitioner in explaining why they diagnose different kinds of sicknesses. Similarly, Mr. Choc also expresses that “A doctor uses the equipment he has been trained to use to find out what is wrong. *Iloneleb’* cannot tell some sicknesses because we don’t have that equipment. What we do is pulsate.” Anignazio and Mr. Choc rationalize that the type of tools and techniques limit a practitioner’s diagnostic capacity to a specific set of sicknesses.

¹⁴ Ontology and epistemology are interrelated. While epistemological technologies shape ontological truths it is also the case that ontological truths shape the creation of epistemological technologies.

¹⁵ For a more complete list of technologies used in Q’eqchi’ medicine, see Waldram (2020, 182-190).

The treatment variation between doctors and *iloneleb'* is also a product of their available medical interventions. Mr. Emilio elaborates that “Doctors can’t treat *susto* (fright). This sickness is not treated with [pharmaceutical] pills, but it is treated with plant medication and burning some *copal pom* (incense) while calling out to the person’s spirit to return [to the patient’s body].” Doctors are not capable of treating certain sicknesses because they do not have the knowledge, tools, or medicines to do so. Cecelia, a forty-one-year-old mother, also understands it in this way. “Bush doctors have a lot of bush medicine,” she explains. “Doctors’ medicine is not the same. Sometimes [they] don’t know what medicine to give to you.” Cecelia’s concern does not mean that doctors do not know what medicine to prescribe. Rather she raises a problem many villagers perceive regarding doctors’ limited selection of medicines. In their critique of biomedicine, they often complain that doctors “give the same medication over and over again,” while *iloneleb'* with their knowledge of medicinal plants and other interventions can produce a number of remedies.

Specialization and Skill

In addition to doctors and *iloneleb'* having distinct knowledge and technology that affect their diagnostic and treatment outcomes, within a given medical system practitioners also have different levels of specialization and skill. While Western medicine distinguishes doctors by specialty, such as family physician, paediatrician, and so on, Q’eqchi’ Maya medicine is not as rigid. “*Iloneleb'* have different knowledge based on where and with who they learned,” explains Mr. Emilio. Not all *iloneleb'* have the same knowledge. In fact, it is common for *iloneleb'* to study with several masters to improve their practice. This is not to say that the difference in their knowledge is drastic to the point that there is no core to Q’eqchi’ medicine. Waldram’s (2020) ethnography, *An Imperative to Cure*, eloquently captures an underlying organizational structure. *Iloneleb'* also have incremental knowledge regarding aspects of medicine such as medicinal plants, completion of prayers, and knowledge and experience with certain sicknesses. With the use of analytical techniques, Waldram (2020, 105) argues that differences in knowledge among *iloneleb'* points to a distinction between general medical practitioners and specialists. Moreover, both general practitioners and specialists often vary considerably in skill, that is, the “developed judgement through experience, with deep roots in a solid foundation of medical [knowledge] and technology” (Cassell 1997, 28). A practitioner’s skill is largely contingent on factors such as their medical pedagogy, cognitive aptitude, and exposure and mastery with sickness cases.

Patients and their families rank practitioners according to their specialization and skill. “He is not a really good *ilonel*.” Carloita shares. “He is only good with small [non-serious] sicknesses like treating diarrhea, *kaanil* (spirit loss), or fever. With sicknesses that are given [such as *obeah*], he cannot [cure].” In using a practitioner’s service, villagers ascribe their specialization to the sicknesses they can cure. Sometimes the Q’eqchi’ classify an *ilonel*’s medical power in more general terms, taking into account their overall skill level. Aurora discloses, “Some *iloneleb*’ are not so good at treating serious cases, and their patients will not get better or might die.”

Doctors, too, are ranked according to their medical power, as Monica’s story exemplifies. Monica, a mother of two in her early thirties, suffered for months from fever, jaundice, and excessive fatigue. At its onset, she sought various health care options which did not work. During our interview, she recounts:

I was taking Tylenol. It stopped my sickness, my fever, but not for long. I went to the Hillside clinic, but they only gave me Tylenol. My mother-in-law sent me to the Big Falls clinic, and they gave me two bags of drips [saline solution]. [...] I didn’t get better; my fever came again, and my fists were like this (both her fists are clenched tightly). [...] [My family then] sent me to the Punta Gorda hospital. [...] I stayed there for two weeks. I have fever, I have loose stool, I lose blood, I lose weight. It’s not getting better, I said. I don’t want to stay in the hospital for long, so [I signed the hospital release form and] I came home. So, then my sister-in-law got an *ilonel*, but he doesn’t make me better. [...] After two days, my mom got another *ilonel*. He [treated me and] saw that I am not getting better, so he told my family it’s better to try a doctor.

The following day, Monica started vomiting blood, and her family decided to take her to a private clinic, forty minutes away in Mango Creek. The clinic was about to close, but given Monica’s terrible state, they made an exception, examined her, and referred her to the Southern Regional Hospital. It took the family an additional extra hour to reach Dangriga by charter car. There, the doctors tried treating her, but the condition became so critical that they rushed her by ambulance another two hours away to the Karl Heusner Memorial Hospital in Belize City. The doctors there diagnosed her with hemolytic anemia. Unable to treat the condition, they encouraged her to seek care from a specialist outside of Belize. Two weeks before our interview, Monica’s husband and her cousin accompanied her to the private doctor in Mérida, Mexico. Having encountered many practitioners, I ask Monica what she thinks of them. “I think [the public system] needs more good doctors and more tests, so they can understand what patients are feeling and their sickness, and they need more medication to give [to their] patients,” she asserts, “because if they don’t take care

and if they don't cure, they risk the patient's life." Monica experienced doctors unable to diagnose, doctors able to diagnose but not treat, and a private doctor who is now treating her condition. Therefore, her statement about needing better physicians is a criticism regarding their specialized knowledge in what they can diagnose and treat, as well as of their skill in terms of being able to cure.

Few villagers have experienced tertiary care and private doctors outside of the Southern Health Region; most villagers have only used primary health care and private clinics in the southern region. Nevertheless, there is a consensus among villagers that "private doctors are better" than public ones because they "are quicker to respond to patients' needs," "give patients more attention," and "have more [a wider selection of] medication."

3.1.2 Practitioners' Inability to Cure

The Q'eqchi' understand a practitioner's inability to cure in two ways. First, it could be an issue with the practitioner's specialization or skill, like Carloita, Aurora, and Monica show. This concerns villagers' generalized evaluation, where they rank a practitioner's medical power as being greater or lesser than that of another. Such an evaluation implicates the practitioner's manifest empirical knowledge; i.e. their ability to apply latent knowledge to a particular sickness case to diagnose correctly and produce a curative result. Second, it could be an issue with the practitioner's theoretical knowledge and use of technology. This concerns villagers' relative evaluation, where they assess *iloneleb'* and doctors as having different knowledge about a disorder and its treatment. Such an evaluation implicates the practitioner's latent empirical knowledge; i.e. their collectively-held medical knowledge regarding diagnoses and treatments.

For the Q'eqchi', a practitioner can achieve a successful therapeutic outcome insofar as they make a correct diagnosis and provide a curative treatment. Monica's experience demonstrates this. After having accessed all free public options, her family decided to have two *iloneleb'* come treat her. I ask Monica why the *ilonel* did not improve her condition, and she replies confidently, "Because the bush [medicine] they gave me was not for the sickness I have. If I had a different sickness [the one they diagnosed], they would have cured it." She does not discredit the practitioner's ability to cure; instead, she sees it as an issue of diagnosis, which stems from differences in practitioners' theoretical knowledge. However, as Monica confirms, even if a

practitioner correctly diagnoses a condition, as did the doctors in Belize City, this does not mean they can cure it.

From the point of view of the villagers, a successful outcome proves a practitioner's medical power and confirms the correctness of their diagnosis. This, in turn, is the building block of a practitioner's reputation regarding what kinds of sicknesses they are capable of curing. Patients and their families re-assess their therapeutic course of action if a practitioner's intervention does not prove effective. The variability of practitioners' medical power consequently leads Q'eqchi' to have *jun chi k'a'uxl* (one mind) when selecting a practitioner.

3.2 Having “*Jun Chi K'a'uxl*” for a Practitioner and Their Intervention

Q'eqchi' villagers recognize that for a sick person to become cured, they and their family must have *jun chi k'a'uxl*, or “one mind.” Earlier in this chapter, Lina and Estevan allude to this in their explanation of practitioners' relationship with God. Lina mentions, “We have to believe in the decision one makes,” and Estevan remarks, “We need to have enough faith.” In the context of believing and having faith, villagers often speak about “Putting your mind there,” meaning fully committing to a thought and action.

Basilio's story is an example of having *jun chi k'a'uxl*. He and his family were heading home from church at dusk. As they walked through some bushes, his wife let out a scream in agony. Basilio, startled, pointed his flashlight towards her and saw a fer-de-lance slither away.¹⁶ He immediately rushed over, lifted her onto his back and ran home. All the extended family then gathered to decide from whom they should seek help. Once they came to a decision, Basilio got on his bicycle and rode in the pitch-black night to the *ilonel*'s house as fast as he could. He is sitting on the edge of his seat as he recounts the story during our interview. I ask what was going through his mind while biking, and he exclaims:

I don't want to lose her, that's the only thing on my mind! I want this to be cured – cured, cured, cured, cured, cured, cured, cured, cured, all the way! I am going there, and I don't have two minds (*xcab rix xk'a'uxl*); only one mind (*jun chi k'a'uxl*). Because the way how a bush doctor works, they pray to our God, the same one that we

¹⁶ Fer-de-lance is a type of pit viper with hemotoxic venom that if left untreated can be fatal.

believe in up there. We couldn't cure this with only our own belief in God. [...] But we need also to pray to help her so that the sickness can go away.

Having *jun chi k'a'uxl*, or one mind, has two characteristics. First, the family and the patient must have faith in the practitioner they have selected. Although some villagers choose God alone to cure them since he is omnipotent and omniscient, most seek a practitioner's aid. Basilio deems that faith in God and prayers are not enough to save his wife. Second, *jun chi k'a'uxl* is about agreeing on which practitioner will provide a cure. In Basilio's case, seeking treatment from an *ilonel* causes *xcab rix xk'a'uxl*, or "two minds": the faith in God's ability to cure on the one hand and in that of the *ilonel*'s on the other. He acknowledges that *iloneleb'* access God's power to help cure and this merges the *xcab rix xk'a'uxl*, two minds, into *jun chi k'a'uxl*, one mind. In other words, one's belief and commitment to God and the practitioner are compatible. Doctors, *iloneleb'* and pastors are tangible products of God's will, and God is omnipresent and accessible at any given point in space and time. The compatibility between God's tangible gifts and God's intangible presence is a form of medical syncretism that permits villagers to use a practitioner and religious and spiritual practices simultaneously. Later in our interview, Basilio conveys confidently that he and his family made the right choice, because the *ilonel* they chose, along with the family's prayers, cured his wife.

Although patients and their families simultaneously use religious and spiritual practices and a practitioner's service, they think the simultaneous use of two practitioners or more is life-threatening. Having *jun chi k'a'uxl* is especially critical when using practitioners. Lina describes this as she talks about a family member's mental disorder:

She has a big family. Some sisters agreed to have an *ilonel*, some family [members] agreed to have the pastor, and some are in-between. They don't have *jun chi k'a'uxl* and stick to, let's say, the *ilonel* [the same option]. It's always up and down, some want and some not. [...] The pastor and the *ilonel* came [on the same day], but when she was left alone, it [her mental state] got worse. [...] If you put in your mind that it needs an *ilonel*, you have to think about the *ilonel* as true. But you can't use them both [at the same time]; it might make you get more crazy or worse than that.

In contrast to Basilio's family, Lina's family experienced their inability to make up *jun chi k'a'uxl* as detrimental to her relative's health outcome. The services of different practitioners may conflict since *iloneleb'* and pastors both treat meta/material conditions, and since doctors and *iloneleb'* both treat material conditions. Even though faith in God is important, people need to select one

practitioner to connect with God's power. Simultaneously using two practitioners with different kinds of knowledge means not committing to one, and hence, not providing the proper dynamic for a successful therapeutic outcome. Therefore, it is in one's best interest to access practitioners one at a time. This is especially important when using the service of *iloneleb'* and doctors. Dolores, a grandmother in her fifties, reiterates a concern many Q'eqchi' hold. "You can poison yourself using the *ilonel's* medicinal plants and doctor's medicine [at the same time]. [...] Whenever a sickness is not cured, we would try until we see it's not working and [only] then we can go to another type." Dolores confirms there is nothing wrong with using two practitioners, though one must make use of their services serially because the combination and the quantity of the medicines may be fatal.

Jun chi k'a'uxl is not solely about having faith in the selected practitioner and his interventions. It is mostly about the patient and their family members trusting that particular practitioner's ability to cure, and then committing to their service until there is a cure or it proves to be ineffective. The Q'eqchi' perceive great risk to a patient's well-being when their family members do not have *jun chi k'a'uxl*, one mind.

3.3 The Impact of Medicine's Power on Health Care Behaviour

Patients and their families serially select among practitioners until they find one who will cure. However, in some cases cure may not ensue, leading to an exhaustion of all possible therapeutic options or of financial resources and, sometimes, to the patient's death.

Though there is a thirty-year gap between their research, Douglas Reeser and Kathryn Staiano both document this behaviour within the Toledo District. Reeser (2014, 132) explains that "there is therapeutic opportunism evident in [Punta Gorda], and it is driven by the desire to get well. In their quest to get well, people in [Punta Gorda] will do whatever they can [...] and do whatever it takes." This behaviour is precisely what Staiano (1981, 326) captures with the stories of Mr. Sho and Mr. Arzu. In both cases, the men and their families have hope that a given treatment will cure their sickness and relentlessly try as many therapeutic options as are available to them until they find a curative intervention. Although Reeser and Staiano do not focus solely on the Q'eqchi' population, their research is indicative of an ever-present health care behaviour in the Toledo district.

Staiano (1981, 323) explains that among the Caribs in Toledo, “the concept of a chronic illness is neither generally understood nor easily accepted. [...] Rather it is believed a cure will result from the exploration of the correct medical source. There are illnesses for which it is believed the proper medicine has not been discovered but these are regarded as ultimately curable.” Q’eqchi’ community members also see it this way. Many Q’eqchi’ believe that all sicknesses are curable. For example, Carlo, who has been dealing with diabetes for a couple of years and consistently feels fatigued and weak, explains, “[People] tell me [about] a lot of medicinal plants and I try as many as they say to me so that I get better and feel happy again. Since people say that it has no cure, we try almost anything suggested to us. [...] You boil the plants and drink the tea daily so that it reduces the diabetes and eventually kills it out.” Carlo mentions the current predominant biomedical idea that diabetes does not have a cure. Yet he still believes that by finding the correct bush medicine and taking it every day, the sickness will cease to exist. This hope in the power of medicine to cure is also present among the *iloneleb*’, as Mr. Francisco shows. I ask if there is a cure for every sickness, and he responds, “All sicknesses have treatments, [just] sometimes *iloneleb*’ would not find the right treatments to a certain sickness.” Mr. Francisco is not generalizing when stating *all* sicknesses. Instead, he is hopeful that the discovery of a cure is just a matter of time.

Hope in medicine’s power is a driving force behind the culture and political economy of hope in biomedicine in the United States and internationally (Delvecchio Good 2007). Anthropologist Mary-Jo Delvecchio Good (2007) understands hope as the underpinning of the “medical imaginary,” where people embrace biomedical interventions not based on therapeutic efficacy or effectiveness, but on an emotional dimension of possibility that extends beyond realized achievements. Despite potential negative outcomes, such as iatrogenic effects and patient deaths, their regard for the power of medicine is “set in the larger optimistic story of the hope and the many-possibility science of medicine” (Delvecchio Good 2007, 366). Although Delvecchio Good (2007) associates the medical imaginary with biomedicine, the Q’eqchi’ show that it extends beyond the biomedical arena to include other medical systems, primarily ones that focus on restorative processes where the treatment’s outcome is coupled with a cure. Carlo and Mr. Francisco express this medical hope; however, their optimistic view is not necessarily one grounded in their “imagination” insofar as it is grounded in expectations of medicine’s proven power to cure.

Q'eqchi' people's understanding of the power of medicine, and by extension practitioner's capabilities, impacts their care-seeking. Instead of calling this behaviour "therapeutic opportunism" (Reeser 2014, 131-132, 143-144), which may negatively connote a selfish interest in taking advantage of every circumstance available, I prefer to use the expression "pragmatic health care behaviour." Pragmatism is an "action determined by the need to respond to immediate necessity or to achieve a particular practical result, rather than by established policy or dogma" (Youngston 2005), which, in the case of the Q'eqchi', is a return to a person's previous psychosocial functioning. With this definition, I reconfigure Reeser's concept of people taking advantage of situations in their desire to get well into an understanding whereby people try to reach a goal by force of an underlying *need* to get well. Pragmatic health care behaviour, then, is a practice propelled by the interaction between people's hope that medicine could provide a cure and their need to get well.

Maria embodies pragmatic health care behaviour. Twelve years ago, she fell down a flight of stairs when she was eight months pregnant with her first child. Since then, she has been experiencing chronic sharp back pain, which leaves her unable to complete her daily activities. She initially visited the Big Falls clinic where they provided her with pain killers. When the pain returned within a few hours, her family encouraged her to visit a reputable *ilonel* renowned for treating back pain. Maria is content with the *ilonel's* medical treatment that consists of *jilok* (spiritual massage) and applying previously boiled warm damp leaves to her lower back. For the last twelve years, she has travelled by bus to his house, thirty minutes away from her village, every two to four months, whenever the disabling pain returns. Lately, her pain is worsening and is recurring within two weeks of the *ilonel's* treatment. Since the *ilonel's* treatment is short-lived, I ask if she is satisfied with his work, to which she responds, "[The *ilonel*] helps me. I am satisfied [but] I think I am going to do more check-up on myself [referring to the Punta Gorda hospital]." She takes a small pause, "I want to see whether it is broken, or it just hurts like that. [...] For them [the doctors] to tell me what else to do." Despite Maria's satisfaction with the *ilonel's* work, her growing urgency for health makes her wonder what more the hospital can offer, since they have other technologies, such as an X-Ray machine as well as other treatment options.

I ask Maria what she would do, hypothetically, if the doctors did not find anything, and she continues. "I would try a different *ilonel*. [...] The [current] *ilonel* will not tell me whether it is just a sickness or something more serious [like an *obeah* related sickness]." In imagining a possible

care-seeking strategy, she evaluates doctors and *iloneleb'* according to their general and relative likelihood to cure. The doctors at the Punta Gorda hospital have more technology than those at the Big Falls clinic, and therefore may be able to offer a different solution. Furthermore, another *ilonel* with more experience may be able to provide a different therapeutic outcome than the one she frequents, or from doctors who do not acknowledge sicknesses being caused by the meta/material. Maria's hope for cure consequently leaves her wondering about the possibility of other practitioners' potential to cure her. Exhausting practitioners in a serial manner is, therefore, a pragmatic behaviour in Q'eqchi' people's search for a cure.

3.4 Discussion

Practitioners hold the social status of authority figures with greater medical power than laypeople because they have learned to diagnose and treat patients. When evaluating *iloneleb'* and doctors' ability to cure, villagers take into account differences in knowledge, technology, specialization, and skill. They rank therapeutic alternatives according to practitioners' ability to cure and classify them according to the sicknesses they can cure. Some practitioners are reputed as being better than others, based on their skill and specialization, while others are deemed to treat sicknesses either caused by the material or meta/material. Such reputations help villagers distinguish which practitioner is the most viable option, and whether an *iloneleb'*, a doctor, or a pastor is the most appropriate choice. Patients may visit *iloneleb'* and pastors because they understand them, and not doctors, as being able to diagnose and treat the ultimate cause of a sickness. Overall, the Q'eqchi' rank private doctors better than public ones, and consider *iloneleb'* that cure sicknesses caused by obeh better than ones who cannot.

Q'eqchi' people's understanding of *jun chi k'a'uxl* and medicine's power both influence their health care behaviour. The former guides patients and their families to use intervention alternatives serially. Simultaneous use of practitioners is avoided since it can worsen a patient's health condition, or worse, can cause death. Their understanding of medicine's power to cure leads them to exhaust all alternatives until they are cured. This means that patients stop following instructions associated with one therapeutic intervention in order to follow those of the next in the hope of its potential to cure. Non-compliance, therefore, occurs because they feel they must invest their trust in only one practitioner at a time. This serial health care usage complicates the conversation surrounding medical system integration because villagers believe that they risk a

patient's successful treatment outcome if they use *iloneleb'* and doctors at the same time. Teresa, Monica, and Maria's care-seeking behaviour illustrates that patients and their families choose not to revisit intervention options that were not successful. This is particularly troubling for cases where the hospital has been the first option because these doctors gatekeep access to more specialized care. Upon an unsuccessful treatment outcome at the Punta Gorda hospital, the villagers repeatedly choose not to return there when their condition worsens. Instead, they look for other options, which more often than not involves paying out-of-pocket for private doctors and *iloneleb'*.

Selecting an intervention in a medically plural landscape, characterized by an assortment of practitioners, can be onerous for patients and their families. The following chapter further discusses the considerations that go into their health care decisions.

Chapter 4: Criteria that Influence Decision-Making

Fercia waits for me at the bus stop closest to her house. She is dressed in her usual fashion, a tight (elastane) mauve t-shirt, a knee-length denim skirt and her muddied pink flip-flops. Usually, she has her black hair sleekly pinned up in a ponytail, revealing her gold crescent-moon earrings, a cultural symbol worn by most Maya women. Yet today it is in a loose bun with many flyaway strands.

Her eyes are misty as she speaks. “On Wednesday when the men returned from corn picking at the farm, Pablo was fine. He went to church, but when the ceremony finished, he could not stand up and he couldn’t move his hand or leg on the left side. Some people carried him home. Since then, he’s facing a serious sickness. He can’t do anything other than lay in the hammock all day for the last four days. Demi, do you know what it could be?”

Saddened by this news and noticing that it evokes memories of my own grandfather before he passed, I express my deepest sympathy, telling her, “Fercia, I’m not sure what it could be, but my grandpa went through something similar when he had a stroke. He was not able to move one side of his body. He was in the hospital for a long time before he passed away there. If Pablo had a stroke, it might be difficult to pass this sickness.”

“Someone else told me that maybe what Pablo has is a stroke. We have been sleeping at my parents-in-law for the last three nights to help the family,” Fercia continues as we keep walking in the opposite direction from her home.

“Did you bring Pablo to the hospital?” I ask.

“We took him on Thursday, but the doctors didn’t find anything wrong with him. They told us to go to the hospital in Dangriga to do some tests, but it would cost us six-hundred dollars to do that.”

“That’s a lot of money,” I gasp, knowing that some Q’eqchi’ families in Indian Creek have an annual household income of around only \$3,000. A devastating feeling of sadness overwhelms me. I stay quiet for the rest of the walk, contemplating the huge difference between the free public health care my grandfather had in Canada, which included 24/7 hospital staff care and surveillance, weekly sessions with a physiotherapist, and training with rehabilitation specialists – and Pablo’s situation, where he was simply told that nothing could be done, unless the family pays what is far beyond what they have.

Fercia's in-laws property, a ten-minute walk from hers, is one of the larger lots, with five thatch houses and a cacao farm stretching up the hill beside and behind their homes. Four families live here, each in a separate thatch. The fifth open-area thatch is communal; it was built to host the tourists who visit their farm. It is the first time I meet her in-laws.

As Fercia and I walk over mounds of bright green grass towards the open thatch, I see Pablo laying in a hammock and eight of his grandchildren playing on the floor around him. Fercia's children spot me and giggle, "Hello, Demi!" I hug them and introduce myself to the other little ones. As I walk towards Pablo, I smell the distinctive odour of menthol rub. A white bed sheet wraps the left side of his body. With little energy to spare, he only weakly grins. I lean in to shake his right hand and greet his wife, Anna, who brings a plastic chair for me to sit next to Pablo.

On a hand-built wooden table in front of us sits a white MacBook, a luxury most Q'eqchi' families are unable to afford. Its power outlet is connected to a solar-powered battery box. Three girls are watching *The Parent Trap* while the others are having fun chasing the chickens out of the thatch. The DVD player keeps freezing every two minutes, forcing one of the girls to stay standing in a ready position to press Play. One of the girls sitting on the ground turns to me, holding a pink lollipop they are passing among themselves. I smile at her, and she returns the smile, exposing shortened brown baby teeth. Anna exchanges a few words with Pablo, who is dozing in and out of sleep, and then braces his chest to lift him higher up on the hammock. She grabs the Sprite beside her, brings it close to his face and delicately places the straw on his lips. Drops of moisture trickle down the green glass as Pablo takes big gulps.

Having attended to him, she grabs a plastic laundry basket and walks towards the clothesline strung between two of the thatch homes. She touches a few items and starts clipping them off as I walk over to lend a hand. Fercia takes notice and also comes to help. Anna grabs a hanging bedsheet and makes her way back to Pablo to reapply the menthol rub. Fercia brings the basket full of clothes for Anna to put away, and both women wrap the fresh sheet over Pablo's left side, binding his limbs securely.

I make my way over to the next home where the women are cooking. Fercia's eldest daughter, two of her aunts, and an aunt-in-law of hers are there. I greet the women and sit on a turned-over five-litre pail next to Fercia's daughter to help flatten some tortillas on a round, low wooden table. She fills me in on their conversation. "We don't know what to do about my grandpa. It will be hard to go to the Dangriga hospital because it's three hours away with the James Express

bus, but that will not be comfortable for him to sit, and there will be too many people on the bus. He is sixty-one-years-old and needs to lay down. We might have to get my uncle, who has a car, to drive him, but we will need to find money to stay there. Now we're trying to see how much money we can get from everyone. They are saying maybe it is better if we can get a bush doctor to come here, but they are not sure which one to ask.”

In this chapter, I draw on Pablo's story to show four additional criteria that influence patients' and their families' decision-making: health care accessibility, knowledge of the sickness, its perceived seriousness, and knowledge of its remedy.¹⁷ Identifying the criteria that affect choice is a component for the creation of decision tables (Young and Garro 1981), which I depict in the following chapter. The criteria I present in this chapter are those that structure villagers' health care decisions. Patients consider these and decide among intervention alternatives with the continuous advice and support of their families. The criteria thus are flexible, often shaped by the ebbs and flows around daily life and people's agency at particular points in time and space.

4.1 Accessibility

The criterion of accessibility gained attention in the late 1970s and early 1980s with the rise of political-economic theory. Medical anthropologists reveal that accessibility plays a more significant role in influencing people's intervention selection than do beliefs (Janzen 1978; Morsy 1980; Young and Garro 1981; Young and Garro 1982). The criterion of accessibility includes macro- and micro-level health care constraints, but also family support to overcome these.

4.1.1 Health Care Constraints

Macro-level constraints include political and economic forces that impact the expenditure towards health care, which in turn, influences the availability, distribution, and quality of medical resources such as staff, equipment, and medication. Internationally, health is measured quantitatively with physiological indices, macro-level indices (e.g., disease burden, nutritional status, and crude birth, death, and fertility rates), health service infrastructure, access and utilization rates, and socioeconomic indicators (Izquierdo 2005). A government's and its citizens' health care spending

¹⁷ The previous chapter discussed the fifth criterion that influences villagers' decision-making, that being their assessment of an intervention's or a practitioner's likelihood to cure.

are a measurement of a country's health progress, represented as a percentage of their Gross Domestic Product (GDP). Public health care in low-income countries is "frequently chronically under resourced, and they are pervasively inequitable" (World Health Organization Commission on Social Determinants of Health 2008, 94). In Belize, the most recent statistic from 2014, indicates the Total Health Expenditure at 5.8% of GDP (Our World in Data 2019a; World Health Organization 2019b) in which the government's Public Health Expenditure budget at 3.1% of GDP is a limited amount with a heavy dependence on foreign loans (Government of Belize 2019, 22; Government of Belize and the Caribbean Development Bank 2010, 156). The government's spending accounts for 63% of the Total Health Expenditure, while the rest comes from private sector spending, mainly covered by citizens' out-of-pocket payments and private health insurance (Government of Belize 2019, 22). Payments to *iloneleb*' are not included in the Total Health Expenditure calculation, despite citizens using their medical services. The Ministry of Health recognizes the country's perilous condition, stating, "given that international benchmarks stipulate that Public Health Expenditure should be around 6% of GDP in order to establish a good health care system with the basic tenants of Universal Health, it is obvious that there is a wide gap in the total investment and in the equitable and efficient use of health care financing in Belize" (Government of Belize 2019, 22-23). Health care in Belize is far from being comparable to the kind of hospital care my grandfather received in Canada in 2014, when the Canadian government Public Health Expenditure accounted for 7.41% of GDP (Our World in Data 2019b).

To complicate Belizeans' inequitable global standards, those in the Toledo district are further marginalized. Current Belizean laws, institutions, and organizations were shaped within a colonial past and continue to subordinate Maya populations (Wainwright 2015). Worldwide, government actions have politically and economically disadvantaged Indigenous communities, including the Maya in Belize, especially those living in the country's district with the highest Indigenous populace. In addition, Toledo's geographical situation – sparse villages that are far from central offices – makes it costly and challenging to maintain utilities and public services such as water supply, waste management, health care, and schools (Government of Belize and the Caribbean Development Bank 2010, 226). While the scope of this thesis does not allow for an examination of other vital factors that affect Q'eqchi' people's determinants of health, I do want to discuss one of these conditions, waste management, to highlight the exacerbation of these inequalities. In Toledo, waste disposal is not only inadequate, but unhealthy. Half of the district's

households burn their garbage, a statistic two times higher than the national average (Government of Belize 2015, 9). Consumerism has taken over without proper means of disposal. Q'eqchi' families burn plastic soda bottles, food scraps, diapers, and other trash, releasing dangerous, carcinogenic chemicals into the air they breathe. Batteries are disposed of on the ground to decay, leaking potassium hydroxide in the soil, near plants and vegetables that are later consumed. These types of constraints perpetuate “structural violence” (Farmer 2005) for the Q'eqchi'; they are victims of high levels of poverty and health outcomes that are substantially below the national average (Government of Belize and the Caribbean Development Bank 2010, 59).

Maya populations are underprivileged not only in their health outcomes, but also in the kind of care they have available. The Belizean national health care system continues to marginalize and neglect the quality of health care services in southern Belize (Reeser 2014). Compared to the Central, Northern, and Western Health Regions, the Southern Health Region, has an inequitable distribution of doctors, nurses, and medical equipment and supplies (Pan American Health Organization 2009, 27-28). The Toledo district offers only primary care. The main functions of the Punta Gorda hospital are to assess, admit, stabilize, treat or refer according to protocols, as well as manage common disorders and levels of trauma that do not require specialists' interventions (Southern Health Region 2019). It has a few general doctors and only one actively employed specialist, a gynecologist (Government of Belize 2019, 30; Southern Health Region 2019). Patients needing more specialized care are referred to Regional Hospitals. The Southern Regional Hospital in Dangriga, two and a half hours north from Punta Gorda, has two pediatricians, one internal medicine specialist, two surgeons, and one anesthesiologist (Southern Health Region 2019). When doctors cannot treat a condition, they then refer the patient to tertiary care. The Karl Heusner Memorial Hospital in Belize City, two hours north from Dangriga, has a larger number of specialists and it is the only public hospital in the country that offers radiology, dialysis, cardiology, neurology, among other services (Southern Health Region 2019). In Pablo's case, the Punta Gorda hospital staff referred him to the Southern Regional Hospital to see what more their specialists and technology could offer in diagnosing and perhaps treating the disorder. If Pablo did suffer a stroke, however, it is highly probable that the Southern Regional Hospital would need to refer him to the Karl Heusner Memorial Hospital to get a computerized tomography scan and specialized care.

The location and cost of intervention are both macro- and micro-level constraints. They are macro-level in the sense that the location and cost are beyond the individual's control. They are micro-level insofar as they involve an individual's employment, material capital, and familial and other social relations. The income of Toledo residents is well below the Gross National Income of BZD\$6,050 (US\$3,025) (Pan American Health Organization 2009; Government of Belize and the Caribbean Development Bank 2010, 26 and 51-52). Despite the decrease of poverty rates in Toledo over the years, it still remains the most impoverished district with more than half of the population living in poverty (Government of Belize and the Caribbean Development Bank 2009, 225), and one-third of households living in indigence, struggling to earn \$2,234 (Government of Belize and the Caribbean Development Bank 2010, 50 and 57).¹⁸ The Maya are the poorest ethnic group in the district (Government of Belize and Pan American Health Organization 2014, 15; Pan American Health Organization 2009, 14), with only two-thirds employed (Statistical Institute of Belize 2019, Table 1.4), and of those employed, three-quarters being underemployed (Statistical Institute of Belize 2019, Table 1.5). Families must allocate their money to necessary expenses such as food, household necessities, clothes, and education, and are more often than not unprepared when emergency medical situations arise. While some health care alternatives are free of cost, others are not, compelling patients and their families to pay out-of-pocket. Although Pablo and his family are slightly more fortunate than other families in Indian Creek, the cost of an emergency health situation is not something a single household can afford.¹⁹ Indigenous communities rely on kin to accomplish things together. In this way, families with more resources have a better chance to transcend these constraints.

Distance and Cost

The location and cost of health care alternatives are two aspects villagers in Indian Creek regularly take into account when making treatment decisions. Self-treatments are free or relatively low in cost. Medicinal herbs can be in the surrounding environment and are sometimes grown in household gardens. The local shops in Indian Creek sell pharmaceuticals or folk medicines, which

¹⁸ Indigence rates are calculated based on a household's ability to earn enough to afford "The Minimum Cost Daily Food Basket."

¹⁹ Pablo's family is more fortunate (including the wealth of his children and their families) in the sense that they make a bit more money than the average of other Q'eqchi' families in the village and they have a vehicle instead of needing to charter one.

range between \$2 to \$15. It is common for local shops to run out of stock, forcing the patient to visit a public clinic or travel to a pharmacy in Punta Gorda.

The Belize Ministry of Health provides government-supported health care services and pharmaceuticals generally free of cost for Belizean citizens upon the presentation of their social security card. Sometimes patients pay a small percentage of the costs – a co-payment – depending on the select hospital, pharmaceutical, and other support services. There are three general instances of co-payment (Social Security Board Belize 2017, 6): first, when the patient receives an X-ray, ultrasound, or a laboratory test; second, when the patient purchases prescribed medications from a National Health Insurance registered pharmacy; third, when a patient is referred by a practitioner to see an specialist registered through the National Health Insurance. The patient’s fee is contingent on the service, usually ranging between \$5 and \$30, but it may be waived if deemed a barrier to them getting care (Pan American Health Organization 2009, 22).

The newly paved Southern highway has facilitated access to nearby health facilities for Indian Creek villagers. However, the hours of operation and the cost of transport factor into decision-making. The Big Falls clinic is a ten-minute bus ride away from Indian Creek, costing \$4 round-trip per person. The center’s opening hours are from Monday to Friday from 7 am to 12 pm and 1 pm to 4 pm. The Hillside clinic offers on-site health care from Monday to Friday from 7:30 am to 11:30 am.²⁰ It is located in Eldridgeville, about twenty-five minutes away and a round-trip fare of \$7.

The bus trip to the hospital takes about forty-five minutes, with a round-trip fare of \$8. Although the hospital operates 24/7, the Q’eqchi’ from Indian Creek have to work around the bus schedule. Buses typically run from villages into town starting at 6 am and ending around 8:30 pm. From Monday to Saturday, buses run regularly, about every thirty minutes, between 8:30 am and 4:30 pm. Outside of these hours and on Sundays, the buses pass every hour or two. With reduced hours during the evening and the sun setting around 6 pm, people consider the difficulties of travelling at nightfall and often postpone going to a health center until the following day. Few families are fortunate enough to have a vehicle and, when necessary, some charter one at a cost between \$80 and \$250. The Q’eqchi’ avoid unnecessary trips to the hospital because they are well

²⁰ Hillside also offers a mobile medical clinic and home care to nearby villages that have difficulty accessing health care (Hillside Health Care International 2017). Indian Creek is not on their town list seeing as they are located on a paved road and near a health center.

aware that nurses and doctors admonish patients who visit without a referral from the polyclinic. A patient's condition may worsen when Punta Gorda health care providers do not send a patient to a better-equipped hospital. The lack of secondary and tertiary care options in Toledo means that transport is necessary for all patients in need of specialized care. In Pablo's case, the family could secure a vehicle, but the cost to stay in Dangriga for an indeterminate period of time posed a potential economic burden. Despite Pablo having a social security card, ambulance service is only provided for conditions deemed an emergency. Thus, even with free health care, many patients cannot access better care.

Patients and their families, therefore, end up choosing to pay out-of-pocket for nearby private doctors and *iloneleb'*. The two private clinics in Punta Gorda entail the same distance and cost as the trip to the hospital. Another private clinic in Independence and Mango Creek (two adjacent villages) is forty-five minutes away with a round-trip fare of \$10. The private clinics are open Monday to Friday business hours. Private practitioners charge a number of different fees. "We [Q'eqchi' families in Indian Creek] do not know the beauty of [private] health insurance," laments Carloita. None of their medical expenses at private clinics are covered. Fees include \$25 for the office to create a patient file, on top of which patients pay for service fees, required tests, and medications. A single visit can cost a family between \$80 to \$300. This does not include any follow-up visits that may be required. Some families may even seek service from private clinics beyond these towns, and occasionally even outside of the country, significantly increasing the expense.

Community members of Indian Creek may use the service of one of the three *iloneleb'* living within their village or an *ilonel* from outside of the village. With the latter, the Q'eqchi' once again face the issue of transportation.

All treatments by *iloneleb'* come at a cost. "Some *iloneleb'* don't ask for money; it's your choice whatever you want to offer. But some of the *iloneleb'* [treat] a different kind of sickness," discloses Fercia. "Like just recent now we are facing a serious sickness with one of my little nephews. The *ilonel* is not in our village, and he is asking for three-thousand dollars. The parents are saying they are willing to give the money as long as the baby could get cured." Fercia portrays two different kinds of *iloneleb'*: those who accept whatever the patient and their family can manage at the time, and those who have a set fee. When *iloneleb'* do not ask for money, the patient and their family will pay them according to the kind of disorder, the work it requires, and the amount

a family is able to give. They give around \$20 for a single intervention when it is a non-serious sickness that does not involve much work by the *ilonele*. Payments range between \$50 to \$150 per intervention for serious sicknesses, which more often than not require many interventions. The work of *iloneleb'* is quite demanding as it requires looking for specific bush medicine, travelling to the patient, sexual restrictions, and on some occasions staying with the patient (and, therefore, losing days of farming and other activities).

Some *iloneleb'* who have a good reputation take advantage of patients and their families by overcharging. During an interview with Carlo, Pedro, who is translating our conversation, mentions that "*Iloneleb'* are taking their practice as a business," and Carlo exclaims, "Man! It shows in all *iloneleb'* now. They take it as a business. They follow like the [private] doctor's practice where they charge you with ridiculous prices." Some *iloneleb'* are charging set prices, commodifying their practice, and making it inaccessible to those who cannot afford it. Actually, it is precisely this that the *iloneleb'* from the MHAB are opposed to; a mandate of theirs is to accept what is within their patient's and family's means.

The fact that patients rarely if ever travel alone, adds significantly to the cost of health care. In cases where biomedical care is required, patients and their families must take into consideration the cost of transport, food, and sometimes housing. Pablo's family estimated a cost of around \$600 for the patient and the caretaking relatives. Although the hospital would cover the cost of food for the patient, it does not do so for those accompanying them. Very few households have money to immediately cover the cost of an unexpected sickness episode, in which case, they must hustle to find ways to raise that money.

4.1.2 The Importance of Family Support

Patients and their families most commonly raise money by obtaining unsecured loans from extended family and sometimes friends. In Pablo's case, the women in the kitchen spent a substantial amount of time strategizing which family members to ask and estimated the amount they could gather. Often the burden of a given practitioner's fees is on the family members who act as primary caretakers because patients may not have the money, nor the energy to obtain it. Pedro describes this challenge in our interview. "If you don't have money, you have to find where to get it," he explains. "If you lose that person, they're gone forever. But the money, you can always find where you can get that back." Later, he discusses the importance of family and

exclaims, “Some families cooperate to help treat the patient, but some are not helpful at all; it all depends on the family relationship with the patient.” He then pauses to think, and continues, “If my wife gets sick, I have to find ways to find money to pay for her treatment. I’m not going to beg the family to help me; either they want to help or not. If I borrow some money, it’ll be for me to find ways to get that money to repay.” Pedro clearly articulates the responsibility of the primary caretakers; they have to find ways to borrow money and repay it. If relatives are unable or not willing to support, a family may sell their animals, pawn the few gold jewelry pieces they might own, raise money through crowdfunding, and, in extreme cases, sell their leased land. Families usually prioritize the restoration of health over the cost. When families lend money, it helps the family in need overcome the issues of health care accessibility and hopefully saves the sick person.

Relatives also provide a family with instrumental support for everyday activities. This kind of support comes in many forms. Pablo, since the onset of the paralysis of his limbs, has been continuously surrounded by relatives. Three of Pablo’s children and their families live on the same lot and see one another daily. His other seven children and their families live elsewhere in Indian Creek. Usually, these families make several visits weekly, however, since the onset of Pablo’s sickness, many of them have been staying with the family to assist in his care and the daily tasks of cooking, cleaning, and washing.

Sleeping over is customary among the Q’eqchi’, providing support for the sick person and their caregivers. Fercia and the children spent several nights and days with their extended family. Pablo’s kin have taken over his wife’s housekeeping duties to enable her to attend to his needs. Likewise, Monica’s comments about the time of her suffering from hemolytic anemia further illustrate this importance of family. “I am just blessed with them! They take good care of me. They missed me too, that’s why my sisters-in-law all come here. They stay with us for maybe a week or so; they slept with us too.” With sleepovers, Monica describes the kind of help her family provides. “They do everything for me. They make food, they clean the house, they wash dishes, they wash my clothes, and they take care of my kids too.” Relatives also look after the sick person’s children so that they may travel to a practitioner, and caretakers aid in the administration of remedies and ensuring a patient’s compliance.

When men become sick, male kin will supply monetary support to the family as well as take on the sick person’s roles. Amalia, whose husband was bedridden with a severe sickness, recounts that, “My three brothers-in-law helped maintain our family for two months.” Maintaining

a family involves providing foodstuff, bringing household goods, and giving money to purchase these and pay for other expenses. In Pablo's case, for the weeks he could not walk, his sons took over his workload by going to the farm earlier and staying later. The burden of sickness, therefore, is not only felt by the sick person but by their entire family.

In these situations, both helper and those helped benefit: the former by knowing they are fulfilling their important obligation as kin, the latter by being spared the distress from their inability to accomplish usual responsibilities. Maintaining these kinds of relationships is a key element in Q'eqchi' people's notion of well-being. When huddling under the same thatch overnight and helping with responsibilities come sunrise, they are fulfilling their duty as kin. Being present and providing practical help also provides emotional support. Monica states that her family is present not only to help her, but also because they missed her. Together, they share the uncertainty of what will come about, and express hope by finding ways to better the sick person's condition. Furthermore, since religious and spiritual practices are integral in many Q'eqchi' people's lives, praying for the person in their presence, at church, or in one's own time offers spiritual and emotional support as well.

Families who eagerly subsidize and offer instrumental assistance contribute to "gift-giving" (Mauss 1990 [1950]). Lending money and support in a moment of need creates a social bond whereby the receiving family is obligated to reciprocate if the lender ever goes through something similar. Pablo and Fercia's family members often returned the favour when another family member was sick and in need. This relational support among families enhances people's sense of well-being (Uchino, Cacioppo, and Kiecolt-Glaser 1996).

The Advantage of Traditional Medical Knowledge

Family members also exchange information regarding medicinal plants. These are a free resource that could save a family from spending money on pharmaceuticals or taking a trip to practitioners. In fact, many *iloneleb'* took up the practice because they either did not have the funds for an *ilonel* or did not have access to a doctor. Some *iloneleb'* were pushed by their parents to learn, and some found it a necessity. Learning the practice of medicine can provide for an entire family in the long run. Mr. Augustino, the youngest and most recently trained *ilonel* from the MHAB, explains that "I saw the need [to start practicing medicine]. I see my family suffer from all kinds of sicknesses and financial struggles." Similarly, Mr. Francisco recounts, "I started to learn due to my first wife's

death. Nobody was able to help her and there was no hospital.” Mr. Choc relates, “I learned out of necessity. [...] My stepfather taught me. He told me that it would be good to help my [future] family. I did not want to learn; I did not see the need. My deceased mother would encourage me and say we are poor, and perhaps you can help yourself with it.”

Knowledge of home remedies is a precious resource in times where access to a practitioner is difficult. The knowledge a family has of remedies varies. Those who have had *iloneleb*’ in their lineage are more likely to have extensive knowledge of remedies. Tomas, as a son of an *ilonel*, explains the value of medicinal plants. “If you get sick and you don’t have time to go wait at the hospital, you might be able to cure yourself. Or even for your children, if you see them suffering, you would use [plant] medicines to get them healthier in a short time.” Tomas looks at me and raises his eyebrows. “Especially when it’s difficult, like during the night, or when you’re living in a village that’s remote, or if you do not have the money.” The more a family knows, the more they can treat themselves, and the money saved can be used for other necessities. Not having knowledge of a home remedy limits self-treatment (see also Young and Garro 1981), making it imperative for families to consult with a larger network or with a practitioner. However, before patients or families can use their knowledge of the remedy, they must first discern the kind of sickness.

4.2 Making Sense of the Sickness

Chapter Two established that the Q’eqchi’ perceive sickness and evaluate an intervention’s effectiveness according to the change in physical and behavioural signs and symptoms. Sickness is recognized and a practitioner is sought when these interfere with a person’s performance of everyday activities, that is, their sense of well-being. They evaluate the effectiveness of an intervention according to the lessening and disappearance of signs and symptoms and their ability to return to normal activities.

This chapter revisits the importance of signs and symptoms in making sense of the sickness one has, and hence the treatment that will be sought. Tomas states:

The first thing that you do is look at the symptoms. Once you understand the problem that is affecting you, then you begin to treat it. If it’s something you understand that isn’t really something serious, then you can take care of it yourself by going to the pharmacy, around your kitchen, or around your house to look for a remedy [plants]. But if it’s something serious, then you need to get to a doctor.

Expressing a similar sentiment, Anignazio shares:

Most of the time, we have fever, headache, or discomfort in the body. I discuss the symptoms with maybe my wife and son and decide what is wrong and how to treat it. If the sickness is not serious, I would take pills [over-the-counter pain relievers] and see if it goes away. If the sickness is serious, then I would have to see the doctor.

The first step in defining a health disorder, then, is assessing the signs and symptoms (Chrisman 1997; Kleinman 1980; Suchman 1965), which are socially and culturally constructed (Kleinman 1980; Young 1982; Zola 1966). Tomas and Anignazio make sense of the health disorder by interpreting signs and symptoms to make a diagnosis and evaluate the severity.²¹ In the initial diagnosis, however, most Q'eqchi' villagers describe the presented signs and symptoms without involving any elaborate diagnosis of a syndrome (see also Young and Garro 1981, 70-71). This is shown by Anignazio who recognizes indicators such as “fever” and “discomfort” rather than, for example, the flu. Unless a person has extensive knowledge of a particular kind of sickness, it is usually only in subsequent diagnoses – after a failed treatment or after a practitioner’s diagnosis and successful treatment – that villagers interpret something more specific. Consequently, villagers typically prioritize determining the seriousness of the indicators (see also Young and Garro 1981, 72-73).

4.2.1 Seriousness

The majority of the Q'eqchi' conceptualize a serious sickness as one which “can’t be treated at home,” where “an *ilonel* is needed,” when one needs to “go to a private doctor,” or “see a doctor,” as Tomas and Anignazio express. Many also assert that a serious sickness is one which requires “immediate attention” from a practitioner. The perceived seriousness of disorder influences the kind of care sought, that being, either self-treatment or a practitioner.

Villagers differentiate major or serious from small or non-serious sicknesses based on their knowledge of the signs and symptoms. As both men describe, if these are known, one can treat the disorder; however, if they are not known, it requires specialized care. A comparison between Carloita’s and Estevan’s story shows how the knowledge of these play a role in conceptualizing seriousness. Carloita, a thirty-seven-year-old mother of three young adults, sometimes suffers from

²¹ Diagnosis and seriousness are two distinct but interrelated processes: the diagnosis may indicate the course of sickness, therefore revealing its potential seriousness, and the condition’s seriousness may point to a more specific cause, therefore leading to a more precise diagnosis.

headaches that “Come when problems [in the home] arise.” She does not perceive her disorder as serious because she has experienced it before and has successfully treated it. In contrast, when Estevan, a twenty-two-year-old bachelor at the onset of this experience, strapped on and lifted a one-hundred-pound sack of rice, it caused a disturbing, unfamiliar pulling and warming sensation in his abdomen. Although his father advised him not to lift the weight, he assumed that being young and robust, he could manage a fifteen-minute walk from their farm to their house without harm. However, by the time he reached home and removed the sack, he was in excruciating pain. He had painful abdominal cramping, which prevented him from standing up straight. Feeling queasy, he struggled to the community pit latrine and found blood in his feces. Estevan called his father for help. Ashamed to provide details other than bad cramps, he said, “Dad, this is something serious.” His dad laughed it off, thinking he ate too much food, but Estevan’s mother, witnessing her son’s condition, said, “Your son is not okay. You need to take him to the hospital right away.”

Estevan and his mother perceived the disorder as serious because they lacked knowledge of the unusual nature and magnitude of the symptoms. The individual’s and their family’s knowledge of both the signs and symptoms and the remedy are essential evaluative factors in determining the seriousness of the sickness. Estevan thought to himself, “I was in for dying,” because not only did the disorder seem to have implications for his future ability to do things, but the uncertainty of its consequences and cure suggest a threat to his life.

Serious sicknesses are differentiated from non-serious ones according to the degree of threat they pose concerning disability and danger (Chrisman 1977, 355): Disability “refers to the degree to which behaviours of daily life are inhibited by the symptoms,” whereas danger “closely relate[s] to the meaning of the symptoms or their explanatory model – their implications.” For villagers, this implication may be that of permanent threat to one’s sense of well-being or, possibly, death.

Iloneleb’ understand the seriousness of a disorder according to the amount of time it lasts. Mr. Francisco explains, “If the sickness started two to three days ago, it is not a serious problem. It is when they have been suffering from sickness for two to three weeks, and nothing is helping them, then it is a serious problem.” To an *ilonel*, two key characteristics of seriousness are the persistence of the sickness and its resistance to treatment. First, a sickness that just started is not serious compared to one that persists for two weeks or more. Second, a sickness that resists treatment proves to be more serious as time elapses and treatment options diminish. Waldram

(2020, 122-130) documents that among *iloneleb'*, sickness nosology is based on not only etiology, but also prognosis. He explains that *iloneleb'* classify some sicknesses by how they develop over time, distinguishing their development from the likelihood of a better treatment outcome. This means that when a person is sick for an extended period, their sickness continues to develop, becoming harder to treat. *Iloneleb'* understand prolonged conditions as those which can cause greater potential danger to a person's life. Early intervention in sickness is, therefore, crucial.

From the perspective of patients and their family members, a prolonged sickness may not yet merit the attention of a practitioner. Although villagers distinguish between non-serious and serious sickness, I was able to infer from interviews, a third category, that of moderately serious conditions. Non-serious disorders are common, cause short term disability, and can be treated at home. Indicators of these disorders include slight fever, malaise, headaches, diarrhea, nausea, coughing, and congestion. Moderately serious sicknesses are prolonged versions of non-serious, causing persistent disability for more than a couple of days, or they are chronic sicknesses, causing disability now and then. These are usually resistant to interventions, but they are not perceived as dangerous. Indicators include mild fever, continued malaise, constant headaches, recurring back pain, and continuous coughing. Serious sicknesses are less prevalent disorders that cause considerable functional disability for an extended time and pose a danger to a person's life. These have signs and symptoms such as high fever, extreme pain, loss of consciousness, behavioural abnormalities, prolonged loss of appetite, excessive bleeding, and cold hands and feet. Accordingly, villagers shift their perception of a non-serious to a moderately serious sickness when it continues disabling a person and resists self-treatment. They shift their perception of a moderately serious to a serious sickness when it persists in disabling a person, and when it resists further interventions, thus proving more dangerous to a patient's well-being. Perceived seriousness, in this case, is categorical and centers on sickness prognosis and not necessarily how it appears at the outset; some sicknesses are known to be acute and curable, while others are known to be life-threatening. Essentially, the Q'eqchi' seek a practitioner's service when they identify a sickness as serious, which, more often than not, means a prolonged disorder.

Moreover, villagers perceive seriousness when, at the onset of the sickness, they evaluate the signs and symptoms as potentially permanent or dangerous to their lives. With Pablo's sickness, he and his family discerned the sudden, intense, and unusual symptoms that left him

immobile as perilous to his well-being and life. While categorizing sickness indicators as serious or not is relatively simple, diagnosing the syndrome is complex.

4.2.2 Diagnosis

In the examples presented earlier, Tomas and Anignazio examine symptoms and signs to see if they know the health disorder. This is a process of diagnosis for laypeople, and it is different from that of practitioners' who have trained knowledge and technical tools. This, however, is not to say that it is impossible for villagers to diagnose a disorder correctly, nor that a practitioner may not at times misdiagnose. Tomas diagnoses according to his experience with specific indicators, while other Q'eqchi' consult with family. Anignazio mentions that he discusses with his wife and son to decide what is wrong. This is a "process of social comparison," where people analyze the indicators with others (Festinger 1959).

Most times Q'eqchi' villagers diagnose signs and symptoms (i.e. fever, headache, fatigue, etc.), though sometimes they diagnose a syndrome (i.e. flu, meningitis, yellow fever, etc.). While villagers identify signs and symptoms as they appear, they identify a syndrome according to the array of indicators presented as well as the context in which they arose. Contextual information may include aspects like environmental surroundings, timing, patterns of recurrence, patterns of manifestation, and persistence and change of signs and symptoms. Deciphering this kind of information is especially important because it evokes an "explanatory model" (Kleinman 1980) about the condition and its consequences. An explanatory model includes assessment of etiology, time and mode of onset of symptoms, pathophysiology, course of sickness, and its treatment.

Contextual details are crucial for diagnosing a syndrome because they provide information regarding cause. For example, if a person is experiencing vomiting and diarrhea, the pairing of these signs may evoke possible causes of food poisoning, a gastrointestinal virus, or *kaanil* (spirit loss). Teodora's story exemplifies how signs and symptoms are combined with context to help diagnose a possible syndrome. She tells me about her five-year-old son who was vomiting and had diarrhea. "I thought right away that it was *kaanil* due to those symptoms." She assumes this because five years ago, she experienced the same indicators to which an *ilonel* diagnosed *kaanil* and cured it. To confirm the probable diagnosis, she pieced together salient contextual aspects. She explains that the day before the appearance of the indicators, she and a friend went to the river to do laundry. Both women brought their children, and while they were washing the clothes, the

children played in the vicinity. Teodora thought to herself that perhaps with all the laughing, yelling, and running, maybe her son fell somewhere, or one of the kids scared him. This led her to ask him if he was frightened at any point, to which he replied yes. Thus, the symptoms, the context, the reframing of events, and physical or emotional response to that experience combined in her mind to point to a specific disorder, *kaanil*.

By questioning how, when, and why her son became sick, Teodora elicits an explanatory model that helps her decipher a probable diagnosis and guides her to choose an appropriate treatment. This is especially crucial for disorders that are caused by the meta/material, since only *iloneleb'* and pastors can cure them.

Yet etiological ambiguity often occurs; sickness indicators and the context of their manifestation are open to interpretation by different people at different points in time. The Q'eqchi' re-interpret a diagnosis when indicators evolve or change within a given timeframe of an unsuccessful treatment outcome, or when either give reason to suspect a different cause. People continuously re-evaluate signs and symptoms and re-negotiate treatment plans throughout the health-seeking process (Chrisman 1978). In moments of ambiguity, making sense of a disorder and being confident of the diagnosis can be quite tricky. When uncommon indicators present themselves or when etiological ambiguity occurs, the affected individual and their family draw on their extensive network to confirm or decipher a probable diagnosis, just as Fercia does when questioning me about Pablo's sickness.

4.3 The Importance of Family Input

Family members play an integral role in a patient's life, not only by offering support, but also by seeking information and making recommendations. In the case of Pablo's sickness, Fercia shows that family members consult others and share the sick person's sickness story. Villagers seek advice from and compare experiences with relatives, friends, and neighbours about indicators, etiology, and appropriate interventions. It is an obligation for kin to share relevant stories, as it enables those concerned to collect pertinent medical experiences.

Lina highlights the importance of sharing information with her community members in her narrative about her daughter's sickness. She states, "If somebody tells me someone is getting pains like how she [my daughter] got, well I try to tell them it's same thing that happened to she [my daughter]. I tell them it's appendicitis because I already know, so I will encourage them that they

have the same.” Later, Lina exposes the value of sharing this information. “[But] if I don’t know [the person is sick], well I can’t do nothing. If you hear the message, then you have a chance. You have a right to go and help them.” She suggests it is one’s civic responsibility to share pertinent medical experiences. Sharing a person’s story holds the important function of getting information around in Indian Creek; if the information gets to someone who has previous experience with or knowledge of the sickness, it can save a life.

Lina describes appendicitis by the signs and symptoms, the context of their appearance, and their severity throughout the sickness’ development. Similarly, Fercia, highlights these details when recounting Pablo’s experience. She describes the kinds of indicators, the context in which they arose, and their consequences. Lina’s and Fercia’s stories are at opposite sides of a dialogue; one has a civic duty to inform, and the other has a family obligation to amass information. These dialogues are necessary moral engagements in which community members help save an individual by speculating about possible diagnoses. When Fercia shared with me that someone else also told her that Pablo might have had a stroke, this demonstrates her thorough inquiry to identify the possible sickness.

Sharing these sickness details initiates the inevitable discussion of treatment outcomes. When Fercia had asked me if I knew what Pablo might have, I did not simply offer a speculative diagnosis, I also shared a narrative about my grandpa’s fate. Lina, too, in our interview, does not stop at the possible diagnosis. Without asking about the outcome, she provides a comprehensive story of how her daughter was cured through surgery. She describes how the Punta Gorda hospital sent them both to the Southern Regional Hospital by ambulance and elaborates on how little money they had. Both prayed to God multiple times to help cure and relieve their financial struggle. Family members look to gain knowledge of the sickness, and, in doing so, there is an expectation that people will discuss interventions and their outcomes. This network of shared information is what sociologist Eliot Freidson (1970) terms the “lay referral system,” wherein people talk with others about who is sick and what to do about it.

Family members and, by extension, their social network, guide a patient’s interpretations, decisions, and choices. Kleinman (1980, 50) describes this network as a function of the popular sector. Family members interrogate as many people as possible about their experiences and knowledge, and then gather to share their findings, after which the patient or their caretakers can

make an informed decision. For example, Basilio, recall from the last chapter, describes his family's decision-making process when a fer-de-lance bit his wife:

There are three *iloneleb'* in this village, and I can see majority of my family say this guy here is really good. We grew up in a big family, so what happen to that one [patient] – I knew. So, what happen to this one [patient] – we knew. So, what happen to the other people [patients] out there – we knew. Because a lot of people tried him [the *ilonel*] and it [his treatment] works. I can see majority of the people says that whenever snake bite you and you go to him, and he really cure. So, my family come together with that idea, and we choose him.

Knowledge regarding others' experiences with a health problem and its cure becomes critical for selecting the appropriate intervention. Luckily, the family was sure of the condition, and their accumulated information resulted in a consensus pointing to one specific *ilonel*. In cases where patients and their families are unsure of the diagnosis or its remedy, family members will take turns recommending a new treatment option.

The Q'eqchi' return to their social network for advice after an unsuccessful treatment. Tomas describes this approach, "The last time we tried treating dysentery, we went to the doctor, and it didn't work. The antibiotics they gave made it worse. It made [the patient] vomit more." He then explains, "So, we talked to other people and asked close relatives who had the same sickness how they went about treating it. They suggested different home remedies, and we tried it." Tomas' example shows that when a treatment fails, patients and their families do not return to the same practitioner, but instead access their trusted, popular sector for advice. Pablo's family behaves comparably. After having visited the hospital, Fercia and others continue to ask friends and community members about the sickness and its possible remedy to determine a diagnosis and the next best course of action. Gaining knowledge about the sickness and remedy happens primarily through amassing recommendations. Trusted people's experiential knowledge is imperative for patients and caretakers to choose wisely by avoiding risky and costly health care alternatives.

4.4 Discussion

The accessibility of health care structures Q'eqchi' people's choice of intervention. The cost of care, the location, and the hours of operation, dictate what can and cannot be accessed at a given point in time. Family members can leverage these by providing their sick kin with support and resources like self-treatments, money, or transportation. Yet primary health care, in and of itself,

is a constraint on the kind of care the Q'eqchi' receive, for it is organized such that first-contact doctors see as many patients as possible, only referring them to more costly services when deemed necessary. Although this mode of organization saves money through efficiency and restriction of expensive services (Cassell 1997, 32), it imposes barriers that perpetuate health inequalities for the Q'eqchi'. For example, ambulance and helicopter services are free in cases of "emergencies" (Belize Emergency Response Team n.d.), which from a biomedical perspective values physical life above well-being (see Foucault 1978, 138-141). Furthermore, private doctors and certain *iloneleb'* are increasingly selling their service as a commodity. Families often have no other choice than to incur debt to access more specialized care. Despite kin helping a patient secure money and transport, the struggles and stress they undergo to access further health care demonstrate the inadequacy of the national health care system in meeting the needs of the community (see also Reeser 2014).

Patients rely on their family and community members to make sense of a sickness and find an appropriate remedy. The Q'eqchi' make sense of sickness by interpreting the signs and symptoms into a diagnosis and by assessing its seriousness. Since making sense of a disorder is a socio-cultural process, family and community members inevitably influence the interpretation process. Having previous experience or knowledge of indicators is advantageous for interpreting a diagnosis and classifying severity. What is usually of prime importance to the Q'eqchi' is to determine the severity of the signs and symptoms. They understand non-serious conditions as those that cause short term disability, and serious conditions as those that debilitate and pose a threat to life. An overall pattern of their care-seeking is that non-serious sicknesses are treated at home, whereas serious ones require the attention of an expert. The Q'eqchi' initially diagnose signs and symptoms and, in some cases, a syndrome. Sickness is interpreted differently by different people, and interpretations change over time. Those able to decipher a diagnosis are cued towards a suitable self-treatment or practitioner. If patients and their families are not sure of the signs and symptoms, they must consult with others to make sense of it. In discussing a person's sickness, family members anticipate that community members will share valuable information. These stories typically include a patient's outcome with a given sickness, the treatment recourse, and a practitioner's reputation. Pertinent experiences limit trial-and-error, therefore saving families money and time.

A crucial finding is that patients and their families place more trust in their social circle than in practitioners. Berger-Gonzalez et al. (2016) argue that in Maya communities, health care behaviour extends beyond the dyadic patient–practitioner relationship to include the patient’s social network. Chapter Two shows that negotiation of sickness prognosis and treatment effectiveness happens primarily between patient–family relations and not between practitioner–patient or practitioner–family relations. This chapter demonstrates that the sick individual and their caretakers make decisions based on information gathered by their family members. Particularly, when it comes to treatment decisions, the Q’eqchi’ turn to their social network for advice instead of consulting with practitioners. Patients and their families reach out to doctors and *iloneleb’* for treatment, but they do not confide in them. They rarely disclose the sickness story to *iloneleb’* (Waldram 2020, 197) and doctors; they admit a “real” practitioner should be able to determine the sickness without these details (Waldram 2020, 141). This relationship is drastically different from how they share highly detailed stories with relatives, friends, and neighbours. They instead seek advice and information from those they trust, even knowing that their recommendations may not always work.

One’s social network plays an integral role in shaping the criteria of health care accessibility, the perceived severity, and the knowledge one has of the sickness and its remedy. The following chapter goes beyond how each criterion individually affects decision-making by looking at how these criteria, including villagers’ knowledge of a practitioner’s likelihood to cure, interact when patients and their families choose an intervention, and its cure is not forthcoming.

Chapter 5: Selecting Among Intervention Alternatives

I had seen Teresa a few times before her recovery, and gladly, today, she is in a much better condition. She tells her story of treatment selection with lots of energy.

“When I started washing the clothes, I felt pain in my belly, and my bones started to hurt like I am going to have fever. That same evening, my family went to church, but I could not go. I was not doing better. My daughter massaged my back, but after I felt cold, and my belly started to swell. I was feeling a lot of pain.” As Teresa recounts her story, conversations I had with her family pop into my mind, and I piece together anecdotes. I remember her brother speaking to me about the family visiting him in panic for a lift to the Punta Gorda hospital.

“I didn’t know what time they took me to the hospital until I reached there and saw it’s ten o’clock. From then, I started to vomit, and I did not stop.” Teresa exclaims. She narrates her experience with the doctors having diagnosed an infection, yet after five days there, her condition did not improve, which caused her to sign the hospital’s release form.

“I came home, and my family started to make smoke for me to inhale it.” Teresa details that her family placed snipped hair on burning coal, a folk remedy used for *kaanil* (spirit loss). Her brothers had insisted she was frightened by the shot of their rifle at the farm earlier that week, so they decided to cut pieces of their hair to help treat their sister.

With no success, care-seeking continues. “My husband went to town, and he saw a relative that could help me with some bush medicine,” says Teresa. Her husband seized the moment and brought back his uncle on the motorcycle to treat his wife. He diagnosed her with a sickness caused by *obeah* (witchcraft). *Obeah* sicknesses are known to take more time to treat and require *awas* (treatment ceremony), which demands a full commitment by the *ilonel*.²² However, living a forty-five-minute bus ride away and having obligations with other patients, he could not give his full attention to Teresa. He visited her four times over ten days, but his work showed little effect. Teresa and her family committed to the *ilonel* for several more days than they did the hospital, and spent a total of \$200, as the *ilonel* had requested \$50 per visit.

“A few days later, I started to get fever, and it gets worse again, so we went to the Hillside clinic,” says Teresa. This statement reminded me of the time Fercia, the children, and I had gone

²² *Awas* is a ceremony that requires the *ilonel* to sacrifice an animal to the sickness or the evil spirit causing the sickness. Usually, this ceremony happens during late hours, after supper, and it requires that the *ilonel* stay with the patient and their family for a few days to monitor the patient’s condition.

to visit the family upon returning from that appointment. I saw Teresa in the hammock in a fetal position with her hands wrapped tightly around her stomach. Her daughter Faustina told us that a friend of hers suggested Hillside, but they were not helpful. She handed us the doctor's notes, and once in my hands, I studied them intently. The title read "History & Physical Progress Note," and, as I continued, I noticed that the practitioner must have accessed the Belize Health Information System because the hospital's diagnosis of a urinary tract infection was jotted down.²³ This practitioner re-diagnosed her condition as acute pyelonephritis, a kidney infection. Several notes written about Teresa's signs and symptoms confirmed my sense of her severe pain, yet as I looked at the prescription note, I saw "Tylenol 500 mg take 2 tabs now for pain. Referred to hospital." While discussing the situation, Faustina stated that they were not going back to the hospital. Instead, that same day, the family arranged to take Teresa to a private clinic in Mango Creek. Teresa's son went from thatch to thatch to gather money, and her daughter stayed home to cook for everyone. She packed food for the bus ride, and they made their way. This cost the family \$30 for three bus fares, \$80 for patient registration, and \$90 for the medication, tallying \$180.

Upon return, the intervention showed little improvement in the sickness. Teresa's mother, Lucia, ended up spending the night at her daughter's. I recalled her previously explaining that "Tea's skin was ashen, she was frail, with no energy to eat or move, and her hands and feet were so cold." Perceiving these indicators as dangerous, Lucia requested that her son-in-law pick up an *ilonel* that her community members advised her could cure.

"This *ilonel* is how my *q'an y'aj* (stomach ulcer) get cured!" says Teresa animatedly after having narrated the full therapeutic resort. The *ilonel* also recognized her sickness as caused by *obeah*, but, unlike the other *ilonel*, he was able to stay with the family for four consecutive days to treat the sickness properly. After this intensive intervention, the *ilonel* monitored her recovery, stopping by every second or third day over two weeks. The family offered him what they could at the moment, a little over \$300 for his service, and they commended him for curing her.

Understanding how people make health care choices and the order of their decisions is useful for decision-makers to design new policies that improve the conditions of specific communities (Boholm, Henning, and Krzyworzeka 2013; Gladwin 1984; Kaplan and Frosch 2005; Young and Garro 1981). In this chapter, I draw on Teresa's story and other Q'eqchi' villager's

²³ The Belize Health Information System is a database that keeps citizens' health records accessible throughout the country.

health care behaviour to show how health care services are used and the various factors simultaneously considered when selecting a first treatment option and following options if improvement or cure is not forthcoming. I argue that intervention selection primarily depends on an underlying cost-effectiveness analysis made by patients and their families according to what health care and family support they have available, as well as their understanding of the sickness and its appropriate remedy. Often, early treatment options are predictable because they relate to cost; however, later options are harder to predict because they usually involve recommended assessments of the condition and its cure. Overall, I contend that patients' and families' decision-making process is fundamentally pragmatic, choosing that which seems appropriate to them at a given moment in time.

5.1 Patterns of Health Care Behaviour

The seminal ethnography *Medical Choice in a Mexican Village* provides the framework in which the data are presented in this section. Having worked with the Piachatareños in a Mexican pueblo, Young and Garro's (1981) work studied patients care-seeking patterns. They identified the Piachatareños' frequency in the number of treatments used in a given sickness episode and the distribution of each treatment alternative. Almost three hundred sickness cases (a total of five hundred treatment choices) from sixty-two households were analyzed in which the patterns provoked Young and Garro to question what considerations determine the Piachatareños' initially chosen intervention and subsequent decisions.

Following suit, I use thirty-four sickness cases (each was related to me as a story during an interview and some of these occurred during fieldwork) from twenty households to map out the order of options chosen by Q'eqchi' patients and their caretakers throughout a sickness episode. The data come from a sample of villagers recruited based on having used an *ilonel* (though some villagers did mention sickness stories that did not involve an *ilonel*). These patterns of health care behaviour are depicted in Table 5.1. The horizontal axis shows the resort, which is the order of treatment options selected. It begins with a first option, and, in two cases, it reaches the ninth option. The vertical axis represents the thirty-four sickness cases (1 to 34). Presented horizontally beside each is the order of choices selected, a tally of eighty treatment options (the alternatives are presented in the legend). Summarizing these cases, Table 5.2 represents the frequency of the total number of interventions used for a given sickness case, Table 5.3 portrays the distribution of each

treatment alternative selected, and Table 5.4 shows the frequency of cures by each intervention alternative.²⁴

Table 5.1 Patient and Family Patterns of Health Care Behaviour

Case / Resort	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
1	home-W								
2	home-Q								
3	home-Q								
4	home-W	BFC	PGH	<i>ilonel</i>	<i>ilonel</i>	private (referred)	SRH	KHMH	private (ongoing)
5	home-Q	<i>ilonel</i>							
6	home-?	<i>ilonel</i>							
7	home-Q	<i>ilonel</i>							
8	home-?	<i>ilonel</i>							
9	home-Q	<i>ilonel</i>							
10	home-Q	<i>ilonel</i>	<i>ilonel</i>	PGH	<i>ilonel</i>	home-Q	BFC	<i>ilonel</i>	home-W / God (ongoing)
11	home-W	PGH	SRH						
12	home-W	PGH	home-Q	<i>ilonel</i>	HC	private	<i>ilonel</i>		
13	BFC								
14	BFC								
15	BFC								
16	BFC								
17	BFC	private							
18	BFC	private	<i>ilonel</i>						
19	BFC	HC	private						
20	BFC	<i>ilonel</i>							
21	BFC	<i>ilonel</i> (ongoing)							
22	BFC	private (ongoing)							
23	<i>ilonel</i>								
24	<i>ilonel</i>								
25	<i>ilonel</i>								
26	<i>ilonel</i>								
27	PGH								
28	PGH	home-Q							
29	PGH	home-Q / God							
30	PGH	<i>ilonel</i>							
31	PGH	<i>ilonel</i>							
32	PGH	<i>ilonel</i>							
33	PGH	BFC	<i>ilonel</i>						
34	PGH	private	<i>ilonel</i>						
TOTAL:	34	22	8	3	3	3	3	2	2

²⁴ While I have included all thirty-four sickness cases in Table 5.2 and Table 5.3, in Table 5.4 I have excluded the four cases in which treatment is still ongoing and instead only show those in which there was a cure.

Legend

home-Q: Q'eqchi' treatment within the household (folk remedies and plants)
home-W: Western treatment within the household (pharmaceuticals)
home-?: Lack of data concerning which treatment was used in the household
BFC: Big Falls Clinic
HC: Hillside Clinic
PGH: Punta Gorda Hospital
ilonel: Traditional Q'eqchi' Maya Practitioner
private: Private Clinic
SRH: Southern Regional Hospital
KHMH: Karl Heusner Memorial Hospital
God: Praying to God and other forms of religious spirituality
ongoing: Treatment is still required

Table 5.2 Frequency of Options by Total Interventions Used

Number of Interventions	Frequency	Percentage (%)
One	12	35
Two	14	41
Three	5	15
Four		0
Five		0
Six		0
Seven	1	3
Eight		0
Nine	2	6
TOTAL:	34	100

Table 5.3 Distribution of Intervention Choices

Option	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	TOTAL	Distribution (%)
home	12	1.5	1			1			0.5	16	20
BFC	10	2					1			13	16
HC		1			1					2	3
PGH	8	2	1	1						12	15
ilonel	4	11	4	2	2		1	1		25	31
private		4	1			2			1	8	10
other		0.5	1				1	1	0.5	4	5
TOTAL:	34	22	8	3	3	3	3	2	2	80	100

Table 5.4 Frequency of Cures Per Intervention Alternative

Option	Frequency Cure	Percentage Cure (%)
home-Q	3.5	12
home-W	1	3
BFC	4	13
HC		0
PGH	1	3
ilonel	17	57
private	2	7
SRH	1	3
God	0.5	2
TOTAL:	30	100

Together, these four tables illustrate eight noteworthy findings of health care behaviour among the Q'eqchi' in Indian Creek. First, Table 5.2 shows that most (76%) sickness cases are usually resolved after one or two treatment alternatives. About one-third of the cases (35%) required only one treatment option, and almost half (41%) needed two alternatives. A fewer number of cases (15%) involved the use of three interventions, but rarely (9%) four or more. Teresa's episode is exceptional in that it presents a pattern of intervention resort in the presence of an unrelenting sickness that involved more than four treatment alternatives.

Second, Table 5.3 shows that about one-third (12/34 – 35%) of the sickness cases are treated at home first, half are fairly evenly divided between the Big Falls clinic (10/34 – 29%) and the Punta Gorda hospital (8/34 – 24%), and only a small number of sickness cases (4/34 – 12%) involved an *ilonel* as a first option. Therefore, the first treatment chosen tends to be relatively inexpensive home-treatment or a public care option.

Third, as noted above, single recourses are not common. The majority of sicknesses first treated at home (9/12 – 75%), at the Big Falls clinic (6/10 – 60%), and at the Punta Gorda hospital (7/8 – 88%) required a second intervention. Yet for those treated with an *ilonel*, all four cases were cured after a single intervention. The high likelihood of the need for a second treatment suggests that there is a limit as to what patients, their families, and the public health care system can cure.

Fourth, Table 5.3 shows that while the first option tends to be one of these four treatment alternatives (home-treatment, Big Falls, Punta Gorda hospital, or *ilonel*), subsequent options ranged from many alternatives. In half of the sickness cases (11/22 – 50%) in which a second treatment was sought, patients and their families selected an *ilonel*. The other half was fairly evenly divided between home-treatment, Big Falls clinic, Punta Gorda hospital, Hillside clinic, private clinic, and resorting to God and, by extension, religious spirituality. In cases where treatment involved a third option or more, selection again ranged from many alternatives. Villagers tend not to access the Punta Gorda hospital, Big Falls clinic, or Hillside clinic as a third or later option (4/24 – 17%); instead, they select *iloneleb'* (10/24 – 42%) and private clinics (4/24 – 17%), options paid for out-of-pocket.

Fifth, an *ilonel* or a private clinic was sought in thirty-three out of the overall eighty (41%) interventions. While these two avenues collectively were relatively underused as the first option (only four out of thirty-four (12%) first options) they became progressively more important in

subsequent interventions: fifteen out of twenty-two (68%) second options, five out of eight (63%) third options, and nine out of sixteen (56%) four or more options. Thus, a significant proportion of Q'eqchi' villagers' health care expenses have been paid for out-of-pocket.

Sixth, Table 5.1 shows that the Western medical system – here defined as all clinics, hospitals, and home use of pharmaceuticals – is often used as a first option (22/32 – 69%) in comparison to the Q'eqchi' medical system (10/32 – 31%). Nevertheless, within the household Q'eqchi' medicine still remains essential as a first option (6/10 – 60%) in comparison to Western medicine (4/10 – 40%).²⁵ In second and later options, both Western and Q'eqchi' medical systems are used almost equally (Western: 21/46 – 46%, Q'eqchi': 25/46 – 44%). Therefore, Q'eqchi' Maya medicine remains an important recourse in villagers' health care.

Seventh, choices are predominantly sequential rather than concurrent. Simultaneous use is mostly present in the last resort when patients and their families use home-treatments for pain and rely on God for a cure. As Chapter Three discussed, turning to God and religious spirituality happens in almost every sickness experience, no matter the intervention. However, it becomes more pronounced when patients and their families understand God as a last resort to become cured. Table 5.1 shows that options selected after a second intervention tend to show an oscillation between Q'eqchi' Maya and Western medical systems. Teresa's sickness episode is an example. She and the family selected the Punta Gorda hospital (Western medicine), then, in diagnosing *kaanil*, they tried a folk remedy (Q'eqchi' medicine) and then an *ilonel* (Q'eqchi' medicine). They also resorted to the Hillside clinic (Western medicine), and upon the doctor's referral to the hospital, the family chose a private clinic (Western medicine) whose treatment was also ineffective. Lastly, they resorted to a second *ilonel* (Q'eqchi' medicine) who cured them.

Eighth, Table 5.4 shows that *iloneleb'* cured most sickness cases (17/30 – 57%), as defined here by the final treatment recourse sought (four sickness episodes from this table have been excluded in this calculation since their treatment is ongoing). Some of the conditions cured include eye, skin, back, stomach and mental issues, fever, kidney stones, and spirit loss. Q'eqchi' home remedies cured only a few sicknesses (3.5/30 – 12%), including a snake bite, spirit loss, and

²⁵ It is important to note that the denominators are thirty-two and ten instead of thirty-four and twelve because I excluded the two sickness cases with no data regarding whether a Q'eqchi' or Western home remedy was used. Though, in both those cases, an *ilonel* was chosen as a second option. The information presented in section 5.2.2 (namely the relationship between the knowledge of the sickness and its appropriate remedy) would suggest that Q'eqchi' medicine was first used for both cases. This would mean that Q'eqchi' villagers predominantly use Q'eqchi' medicine as a first recourse within their household (8/12 – 67%).

dysentery, and along with God and religious spirituality (0.5/30 – 2%) cured paralysis of one side of the body. The Big Falls clinic cured almost the same amount and Q’eqchi’ home remedies (4/30 – 13%), including headaches, fever and chills, and the flu. The private clinic cured even fewer conditions (2/30 – 7%), including a skin rash and bronchitis. Home use of pharmaceuticals, the Punta Gorda hospital, and the Southern Regional Hospital equally cured the same amount of sicknesses (1/30 – 3% for each). Respectively, the conditions cured were a headache, a problem of the ovaries, and appendicitis. As Chapter Three explained, *iloneleb’* are not only sought out for so-called “culture-bound syndromes” or, more accurately, Q’eqchi’-specific sicknesses (such as *kaanil*), rather there is an overlap in sicknesses both Q’eqchi’ and Western medical systems can treat. In addition, the data here show that *iloneleb’* have cured a range of disorders, in comparison to the Big Falls clinic and the private clinic that have mostly cured conditions involving symptoms and signs of the flu.

5.2 Factors Considered When Choosing an Intervention

Over the years, many theoretical perspectives have been used to understand health care decision-making. Early anthropological studies in the empiricist tradition have looked at how people make choices according to their beliefs (e.g., Kleinman 1980; Romanucci-Schwartz 1969). They understood that people select among medical alternatives according to a “hierarchy of therapeutic resort”: people first choose either the newest introduced or the historically prevailing medical system and, if ineffective, move to another in a particular order (Romanucci-Schwartz 1969). The hierarchy in choosing traditional medicine or biomedicine was understood as a product of a community’s faith in a given medical system over another (Romanucci-Schwartz 1969) or the explanatory model they hold for a given sickness (Kleinman, Eisenberg, and Good 1978). Other theoretical traditions, such as the interpretive, cognitive, and critical theories, move beyond correlating groups of people with the type of care sought. They, instead, focus on the individual’s experience and interpretation of it (e.g., Johannessen 2007), their agency when selecting among health care alternatives (e.g., McMullin 2010), the information they process to make health care decisions (e.g., Young and Garro 1981), and the circumstances that prevent them from accessing care (e.g., Young and Garro 1982). By questioning people in order to understand how decisions are made and acted upon, anthropologists also identified other factors that influence the selection of interventions in a peculiar order, including: the perceived severity of a sickness (Rao 2006;

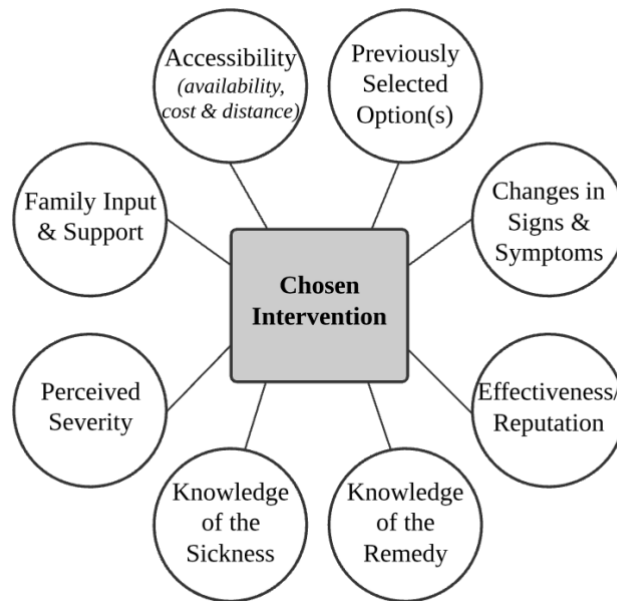
Young 1980; Young and Garro 1981), the perceived effectiveness of a treatment (Rao 2006; Young and Garro 1981), as well as a family's socio-economic standing (Lane and Inhorn Miller 1987; Young and Garro 1982). Consequently, it is multiple factors that influence the order of selected interventions.

Rather than faith defining the hierarchy of resort, Young and Garro (1981, 139-153) proposed that the severity of a sickness determines whether interventions are chosen based on their likelihood to cure (termed *probability-of-cure ordered*) or their cost (*cost ordered*). Working with the Piachatareños, they developed a decision-making model using methods that capture the underlying cognitive mechanisms that lead to a selected intervention. They uncovered four cognitive mechanisms: the perceived gravity of the condition, the knowledge of a home remedy, the faith in a given treatment, and the availability of a treatment alternative. The model's reliability and validity were tested against the three-hundred sickness cases, in which the model predicted about 95% of initial intervention choices and 84% of subsequent options (Young and Garro 1981, 164-166). What was found is that more wealthy households prioritize cost for non-serious sicknesses, selecting the least costly alternative first. In contrast, for serious sicknesses, they consider cost less important and instead prioritize the treatment's probability-of-cure, choosing the option they think will be most effective. Contrarily, less wealthy households tend to prioritize the cost of treatment regardless of the perceived severity. The only time less wealthy households consider an alternative with a substantial expense is after other relatively inexpensive options have failed. These fairly predictable health care decisions among Piachatareños suggest that lower rates of doctor utilization are a consequence of the high expense of biomedical services. This finding led Young and Garro (1981, 171-174) to advocate for better access and inclusion of biomedical services as a solution for future policy makers.

The previous chapters in this thesis have presented the various factors that affect Q'eqchi' patients and their families' health care decisions. Chapter Two has shown the indicators Q'eqchi' villagers use to identify if a person is sick and whether a treatment is effective. Chapter Three has defined villagers' understanding of a practitioner's ability to cure. And Chapter Four has presented the multiple criteria that influence decision-making, including the perceived severity of the condition, knowing the sickness and its appropriate remedy, having a given treatment available, and having family and community input to know of effective treatments and their support to access these. Some criteria, such as health care accessibility and conceptualization of sickness severity

are relatively fixed, whereas other criteria, such as family support and diagnosis, are somewhat malleable. Chapters Two and Three have also presented malleability in decision-making, showing that evaluations of effectiveness and the outcomes of previously chosen treatments influence villagers next treatment selection. Figure 5.1 presents these factors graphically. The following sections discuss how these factors intersect to influence which treatment alternative a patient and the family choose when a sickness episode arises in their life.

Figure 5.1 Factors Considered When Choosing an Intervention



5.2.1 Cost-Effectiveness Analysis

With minimal discretionary income and no private health insurance, the Q’eqchi’ frequently worry about cost. With the introduction of publicly funded primary health care and the newly paved Southern Highway, villagers use *iloneleb’* less frequently as the first option than past generations. “For myself, or like this generation, we don’t rely much on *iloneleb’*. We use mostly doctors when we get sick. We first consult with them, and only if the condition doesn’t get better, we would consider an *ilonel*. But the first visit is usually a doctor,” Anignazio discloses. Whereas in the past, aside from home remedies, *iloneleb’* were the first choice, presently doctors have taken this place. Anignazio continues, “Now we don’t believe much in *iloneleb’* like how it is from way back. We have doctors easily available, and that’s why most people are changing their beliefs.” The availability of biomedical services influences villagers’ beliefs, yet this is not to say that they no

longer believe in *iloneleb'* because, as was shown in Chapter Three, Anignazio and others evaluate both *iloneleb'* and doctors as equal in their ability to cure. Instead, this suggests that decision-making is not as much about the evaluated effectiveness of a practitioner as about their cost. A cause of the decline in *iloneleb'* utilization has more to do with associated expenses than with treatment effectiveness. Self-treatment and public care are cheaper than those of *iloneleb'* and private clinics; therefore, villagers may use free options first before resorting to more costly options. This was the case for Teresa and her family. They chose three relatively inexpensive interventions first (a home-remedy, the Punta Gorda hospital, and then another home-remedy) before moving to more expensive options.

In addition to considering cost, the Q'eqchi' also consider the effectiveness of a given treatment option when selecting among interventions. Inevitably, an intervention's medical power is often reflected in the price. Q'eqchi' villagers evaluate treatment alternatives with the lowest likelihood to cure as the least expensive, and those with the highest likelihood as the most expensive. Overall, patients and their families evaluate self-treatment and the doctors at the Big Falls clinic (the free options) as having a low likelihood to cure. They perceive doctors at the hospital and some non-specialist *iloneleb'* (usually options that require some money) as having an intermediate likelihood to cure. And they rank private doctors and certain *iloneleb'* (usually costly options) as having a high likelihood to cure.

In contrast to Young and Garro's (1981) findings, the Q'eqchi', unlike the Piachatareños, also incorporate their knowledge of the sickness and its cure into their cost-effectiveness analysis. Typically, villagers choose a cost-conscious option with both non-serious and serious sicknesses. Table 5.1 shows that the first treatment option chosen for thirty out of thirty-four (88%) sicknesses was relatively inexpensive (either a home remedy, the Big Falls clinic, or the Punta Gorda hospital) and only four out of the thirty-four (22%) sicknesses required an out-of-pocket expense. Villagers chose to self-treat or visit the Big Falls clinic for non-serious conditions, whereas for serious ones they chose the Punta Gorda Hospital. In the four cases where an *ilonel* was chosen, they have in common that the patient or caretaker knew the sickness and its appropriate remedy. In three cases, the patient or caretaker perceived a non-serious problem of the skin and knew its appropriate remedy but did not have access to the bush medicine. Knowing that an *ilonel* can cure, they chose an *ilonel* first. The other case is Basilio's wife who was bitten by a snake. Recall from Chapter Three that, knowing the condition and its consequential risk to the patient's life, the family

prioritized the effectiveness of medical alternatives and chose a nearby *ilonel* they knew could cure snake bites. Furthermore, for sickness episodes that required a second intervention, in eleven out of twenty-two (50%) cases, the patient and their family chose an out-of-pocket option (either an *ilonel* or a private clinic) when they were confident in the diagnosis and its cure. However, in five out of twenty-two (23%) cases, they were not sure of the sickness and chose public care.²⁶ Patients and caretakers are willing to spend more money and prioritize the treatment's anticipated likelihood to cure when they are confident of the diagnosis and its cure. By the time a condition has resisted three or more interventions, patients and their families tend to perceive it as serious and follow others' recommendations that usually require an out-of-pocket payment.

When selecting among interventions, the distance of a given option is factored into its cost. If the anticipated cost of transport is deemed too expensive, such as Pablo's condition recall from Chapter Four, patients and their families instead resort to another locally available option within their means. If a patient and their family have enough money to select a practitioner paid for out-of-pocket, they additionally consider the practitioner's reputation and weigh it against their location and cost. Most Q'eqchi' in Indian Creek do not visit the private clinics in Punta Gorda; instead, they travel an additional twenty minutes to Independence and Mango Creek because they perceive that "treatment is better there." Villagers assess the added distance and its cost as worthwhile. This cost-effectiveness analysis also applies to *iloneleb'*. For her son's mental condition, Aurora travelled to San Benito Poite, a remote village about three and a half hours southwest from Indian Creek. In rationalizing her decision, she states, "I have known this *ilonel* always to cure patients that he gets." Therefore, if the patient and their family deem an intervention as having a high likelihood to cure, this offsets its anticipated cost.

Q'eqchi' villagers consider an intervention's cost and effectiveness in every case. They choose inexpensive treatment options first and continue to choose these in later recourses, specifically when they are unsure of the sickness or have been recommended to choose that option. If the sickness is perceived as serious, the patient and the family are more likely to spend whatever necessarily (but within their means) to cure the patient. Patients and their families prioritize effectiveness and pay out-of-pocket when they are confident in the diagnosis and its

²⁶ It is important for me to disclose that I did not have enough detail regarding people's decision-making process for the rest of the cases (6/22 – 27%). Therefore, I have excluded these from the analysis. Despite this lack of data, a correlation exists between the knowledge people's knowledge of a sickness and its appropriate remedy and choosing an option that requires payment.

appropriate remedy or in the presence of an unrelenting sickness that has resisted several interventions. The only time villagers do not engage in a cost-effectiveness analysis is when they have exhausted their resources or treatment options. This inevitably leads to a final resort: patients and their families place their faith in God's omnipotence to cure and use either a pharmaceutical or bush medicine to ameliorate symptoms.

While it is rare that patients cannot afford to treat non-serious sicknesses, contrarily severe conditions burden families with considerable debt. When a family deems it necessary, they will pool their money to save a loved one. For Teresa and her family, the medical cost tallied \$700, a range between 12% to 30% of a household's annual income.²⁷ Recommendations of treatment effectiveness are, therefore, essential to help a family save money.

5.2.2 Access and Family Support

Q'eqchi' villagers are constrained by the knowledge and the options they have available, yet, they are also enabled by the familial support they receive. On the one hand, material conditions constrain an individual's selection, including where they live, what health care resources are available, and their socio-economic standing. Typically, patients or caretakers with little support from their kin will have difficulty accessing health care options that require money or long travel time. On the other hand, familial support opens the possibility to choose from multiple interventions. As Chapter Four highlighted, kin provide instrumental, monetary, and emotional support. Therefore, the resources available to a patient from their family members shape the possibilities of what interventions they may seek. Families are aware of the resources they may have available and will make use of these when needed. In Teresa's case, her family relied on their relatives to help provide diagnoses, treatment recommendations, transportation, and money.

The shifting nature of circumstances determine that access to given treatments will vary at different times in one's life, at different moments of the day, and from one villager to another. Furthermore, while the cost of treatment alternatives remains relatively fixed, the evaluation of an intervention's or a practitioner's effectiveness shifts frequently, depending on the kind of diagnosis assessed and the knowledge one has of a remedy. The care-seeking dynamic, therefore, does not lend itself to simplistic decision-making models.

²⁷ This percentage is calculated according to the statistic that households typically earn between \$2,234 and \$6,050 Belize dollars annually, presented in Chapter Four.

Personal and Family Knowledge

An effective treatment outcome depends on both a proper diagnosis and knowing its appropriate remedy. Consequently, the selection of treatments, especially regarding expensive *iloneleb'* and private doctors, happens with a great deal of family discussion and consensus. Family members give input regarding a sickness, its type, and an appropriate intervention. In this way, kin and, by extension, those who provide input influence the patient's health care decision. For the Q'eqchi', knowing the sickness inevitably leads to knowing a remedy because a given condition elicits an explanatory model. Very rarely did villagers mention knowing the sickness but not its remedy. If this were the case, they would consult others to find out which treatment to try. This is what Carlo does, recall from Chapter Three. Knowing that he has diabetes, but unsure of the cure, he keeps trying what others recommend. When the sickness is known, family, friends, and community members always recommend a remedy. Furthermore, even if a sickness is not known, family members often still provide input regarding well-reputed *iloneleb'* or private doctors. Thus, it is possible not to know the sickness, but to know of a good practitioner.

When villagers know the sickness, choosing among interventions is simple. In Chapter Four, Teodora confidently diagnosed her son with *kaanil*. In turn, this influenced her initial decision to treat her son at home with a folk remedy. Upon an unsuccessful outcome and knowing that only an *ilonel* can treat this condition, she consulted with family who suggested Mr. Choc, the *ilonel* in the village known to cure spirit loss. When the condition's cause is known to be meta/material, choosing an *ilonel* is predictable. However, as indicated in this chapter and Chapter Three, doctors and *iloneleb'* treat some of the same sicknesses. In these cases, villagers tend to distinguish the kinds of sicknesses doctors and *iloneleb'* can cure. "We go to an *ilonel* if we have jaundice, or snake bite, or like stomach problem," states Basilio. "I go see *iloneleb'* for problems that are visible [to the eye] [...] *Iloneleb'* sometimes don't know what is inside [the body] so I choose doctors for problems that are inside because they have tests like ultrasound and X-ray." Basilio makes a categorical distinction between practitioners' expertise and what sicknesses they can treat. His categorization matches his actions: he later shared that he first chose an *ilonel* when his son was dealing with jaundice, but first chose a doctor when his son had respiratory problems.

Although the classification and categorization of the sickness and its appropriate cure seem straightforward, often people's evaluations of an intervention's likelihood to cure shift frequently. Young and Garro (1981, 149) use psychologists Tversky and Kahneman's (1974) "judgmental

heuristic of availability” to explain why this happens, suggesting that people primarily base their choice on past successful occurrences. This happens with villagers, specifically when patients and their families are not confident of the diagnosis, and especially when both types of practitioners can cure the sickness. Knowledge regarding what each practitioner can cure, in these instances, varies according to the circulation of different information about past treatment successes and failures. A comparison between Basilio’s decision process and Teodora’s shows this. Teodora told me that her son has had a rash on his chest and scratches it excessively until bleeding. Unlike Basilio, who would have gone to an *ilonel*, Teodora, unsure of the problem, first visited the Big Falls clinic. But having seen no improvement, she explains, “[I went to the private doctor in Mango Creek] because my mother-in-law told me of her cousin who was sick with spots on his body like him [my son’s], and that he is healthy now. So, she encouraged me to go there.” Teodora’s decision was motivated by her trusted in-law’s recommendation. Since doctors and *iloneleb’* cure many of the same conditions, the knowledge of what sicknesses practitioners cure often shifts according to the variable knowledge of one’s social network.

During Teresa’s sickness episode, I was not present when Teresa’s daughter, son, and mother spoke with others who recommended which treatment to select next. However, through conversation with Q’eqchi’ villagers, I observed that they sometimes choose based on the practitioner’s expertise with specific sicknesses, and other times based on the reputation of their overall record in curing the sicknesses brought to them.

5.2.3 Past Intervention Outcomes

The Q’eqchi’ tend to continue to seek treatment until they find one that cures. From one intervention to another, the condition may remain the same or worsen. A treatment’s ineffective outcome and any change in signs and symptoms may lead to a re-interpretation of the sickness as well as the selection of new treatment. The Q’eqchi’ do not use the same intervention or practitioner twice for a given sickness case. Rather, they try new alternatives not yet sought.

Sickness episodes that require more than two treatments may involve several distinct diagnoses. In Teresa’s case, a total of nine diagnoses were made by various people throughout the episode of sickness. At first, Teresa diagnosed bodily pains, but a few hours later, she and her family started noticing bloating and a very low energy level. In a panic, they sought care at the Punta Gorda hospital where the doctor diagnosed a urinary tract infection. With no improvement

in Teresa's condition and new contextual information, the family re-diagnosed the sickness as *kaanil*, which they treated with a folk remedy. Teresa's condition worsened, and her family again became unsure of the sickness. Pursuing still more health care options came with new diagnoses. An *ilonel* diagnosed a sickness caused by *obeah*, the doctor at the Hillside clinic diagnosed acute pyelonephritis, and another *ilonel* diagnosed her with *q'an y'aj*. Throughout Teresa's sickness episode, the family never limited Teresa's diagnosis to one sickness. Rather they presented the sickness as a story which included the signs and symptoms, past treatments used, and any syndrome that was previously assumed. This array of information, alongside family members seeking advice, usually leads to several sickness interpretations and new treatment actions to pursue.

Despite having been diagnosed multiple times, Teresa and her family only confidently knew the sickness and learned its cure when the diagnosis was paired with an outcome they deemed curative. "This [second] *ilonel* is how my *q'an y'aj* (stomach ulcer) get cured!" exclaimed Teresa during our interview. A cure confirms a sickness diagnosis, and, therefore, Q'eqchi' villagers learn to associate the signs and symptoms with the syndrome and the cure.

5.3 A Pragmatic Approach to Decision-Making

The multitude of decision-making theories are testaments of the various ways people make health care choices. People consider a plethora of factors when selecting an intervention. Q'eqchi' patients and family members assess the accessibility of the possible options. They keep on making sense of the sickness, question and seek recommendations regarding appropriate remedies, incorporate past treatment outcomes, and analyze each treatment alternative's cost and effectiveness. Choosing an intervention based on cost is especially critical for Q'eqchi' families that do not have much money. It is only reasonable for families to choose the free options first and then move to more expensive options later. In selecting an intervention based on effectiveness, villagers consult with others to confirm a diagnosis and its appropriate treatment, which usually varies according to whom they consult. If a sickness lasts for a long time, the patient and their family will have sought multiple treatments. Often their strategy entails selecting the intervention that makes the most sense according to the circumstances, knowledge, and resources available at the moment leading up to that decision. What is relevant to the patient and their family is whether the chosen intervention will better the sickness condition.

This type of decision-making analysis is different from the rational calculus presented in psychological Health Belief Models, where people weigh the perceived benefits of specific actions against the perceived barriers of those actions to maximize their chance of a successful outcome (Good 1994, 41-42). The Q'eqchi' do not necessarily consider that a single action provides the greatest benefit, but as Carlo has mentioned, recall from Chapter Three, in some cases it is about trying many alternatives until cured. Villagers' search for a cure is a pragmatic act informed by their own as well as others' experiences, which corresponds to the present needs and constraints.

Throughout this thesis, I have presented four sicknesses cases that unfolded while I was in Belize. These include Mr. Baki, Pablo, Monica, and Teresa. In every case, certain factors, some not touched upon in this thesis, played a role in the selection process. Three years after the onset of the sickness, Mr. Baki had exhausted all treatment options. The past year he became bedridden, making it extremely difficult to seek care. At my arrival, the honorarium I would give often went towards his expressed need for care. My presence, therefore, provided a new opportunity for further treatment. After the initial hospital visit, Pablo shared with me that the anticipated cost of a second treatment option, his age, and his evangelical background, lead him to commit to God to be cured. In Monica's case, most treatment alternatives were chosen by her and the family and some by the doctors. Fortunate to have familial instrumental and monetary support, she could travel outside of the country to seek the needed care. For Teresa, aspects such as convenience, past treatment selection and outcome, and which family member took control in selecting a new option, all led to different responses and actions. The initial *ilonel* was chosen out of pure convenience rather than by recommendation or reputation and, later, family members took turns selecting the next health care option, each having had a different idea of the sickness and who would be able to cure.

Altogether, these four cases suggest that the selection of interventions is highly malleable. Although the first treatment chosen tends to be a predictable cost-conscious option, the Q'eqchi' primarily respond to the multitude of factors presented at a given moment in time. In this way, people's agency makes every health decision unique (see also Johannessen 2007). A pragmatic approach to decision-making recognizes the validity of various methods to achieve a particular end, which for Q'eqchi' patients and their families is that the patient returns to their pre-pathological state of health and well-being.

5.4 Discussion

The patient and their family assess what health care options are accessible in terms of the alternatives available, their cost and location, as well as the instrumental, monetary, and emotional support from family members to access a given treatment option. They also consider a treatment's effectiveness according to the knowledge they have of the sickness, its severity, the knowledge of the remedy, and past intervention outcomes. Patients and their families continuously re-evaluate the factors throughout the entire sickness episode. Villagers' health care behaviour shows that most sicknesses are cured after one or two interventions, though some require further care. Typically, the first treatment chosen is a cost-conscious option, but in later treatments, particularly those that require out-of-pocket payment, villagers also consider an intervention's effectiveness. If the patient or their caretakers have knowledge of the sickness and its appropriate remedy, especially for sicknesses perceived as serious, they select the option they anticipate will provide a cure. Cost becomes secondary in their analysis, although they still acknowledge their available capital. People's health care behaviour is fundamentally pragmatic, constrained and enabled by what patients and their families know and have available at a given point in time. If an unsuccessful intervention results, they do not waste their time or resources returning to that intervention again for the same condition. Typically, in second and subsequent treatments, patients and their families serially select between Q'eqchi' Maya and Western medical systems. They do not rely on one medical system over another but instead resort to both.

Villagers' health care behaviour for serious, unrelenting sicknesses reveals a crucial pitfall of primary health care. Patients only access the Punta Gorda hospital as a first or second option, and rarely as a later option. This means that if the doctor does not cure or transfer the patient in that first visit, there is a slim chance for that patient to receive free specialized biomedical care. Many families live a precarious health care reality akin to Teresa and her family, where they unexpectedly suffer an economic burden, paying out-of-pocket for *iloneleb'* and private doctors. Q'eqchi' community members who live near a paved highway with easier access to public health care nevertheless use *iloneleb'* at every resort. The use of *iloneleb'* may be even more significant for those living in villages only accessible through dirt roads, where travelling to the Punta Gorda hospital is more arduous. *Iloneleb'* are also primary care providers and not just an alternative of last resort. Villagers use their services not only when public health care is unavailable or inaccessible, but also because they are cost effective in some cases and offer effective treatment.

Iloneleb', specifically those considered specialists, may deal with extremely severe sickness cases that threaten the patient's life (see Waldram 2015). *Iloneleb'* are, therefore, essential in providing medical care for the Q'eqchi'.

Yet, despite the critical role played by *iloneleb'*, the Ministry of Health recently released the *Belize Human Resources for Universal Health Strategic Plan 2019-2024* with the chief goal of addressing the shortage of medical professionals (Government of Belize 2019) without considering the service of traditional practitioners. This works against a newly revived global interest where countries are including traditional medicine and practitioners in the national health care system to expand coverage of essential services (World Health Organization 2019a, 5) and reduce cost and pressure on universal health care services (World Health Organization 2013, 53). Furthermore, not including *iloneleb'* in the health care system skews the country's health spending GDP. For example, Teresa's family spent more than double the amount on *iloneleb'* than on private doctors. With this case alone, five-hundred dollars is excluded from the country's GDP. If *iloneleb'* were included in the country's GDP, the Total Health Expenditure would be higher than what it is presently, likely skewing the public-private spending percentages. Thus, if the costs of *iloneleb'* were added into the calculations of health expenditures, the government would appear to contribute even less than it does now (the statistic presented in the previous chapter shows that presently government spending accounts for 63% towards citizens' yearly Total Health Expenditure). In other words, the inclusion of *iloneleb'* would illuminate citizens' out-of-pocket payments for this service, and the resulting decrease in government proportionate contribution to overall health services would demonstrate that it is less involved in their citizens' health care than shown in present statistics. The government is encouraging a large underground health care economy in Toledo and is dismissing a wealth of information that could help make health care better for its citizens.

For Maya communities, spending hundreds of dollars for one sickness episode takes a significant toll on a family's yearly earnings. Literature indicates that, relative to household income, poorer households spend more on health care than more wealthy households, devastatingly pushing them deeper into poverty (Xu et al. 2003; Baeza and Packard 2006). These expenses force families to sacrifice other basic needs, such as food, housing, and education (Baeza and Packard 2006, 6). The government's decision to disregard and exclude *iloneleb'* from the

health care system puts Maya communities at risk of plummeting deeper into poverty. This stance, consequently, furthers the continued injustice to Q'eqchi' communities.

Chapter 6: Conclusion

The previous chapters have addressed how Q'eqchi' patients and their families evaluate the effectiveness of health care interventions, how this affects their care-seeking, and how they make decisions regarding treatment options. I have shown that villagers' interpretation of an individual's well-being affects the commencement, continuation, and discontinuation of an intervention. I have also shown that several factors contribute to the selection of given interventions, specifically those surrounding accessibility, family support, cultural beliefs, and knowledge about the kind of sickness, the severity, and the cure.

To understand villagers' health care behaviour, I have used the four theoretical paradigms (interpretive, cognitive, empiricist, and critical) delineated by Good (1994). The interpretive approach is central to understanding people's beliefs and what it means to be well, sick, and cured. The cognitive paradigm is valuable when looking at how people classify disorders and the reasoning that lead to making a decision about an intervention. The empiricist approach is essential to comprehend how people make decisions and their overall patterns of therapeutic resort. Finally, the critical theoretical paradigm is necessary to understand how patients and their families are restrained politically and economically from having equal access and opportunities. These theoretical approaches have provided a framework showing how structures influence decision-making; ultimately, however, this research shows that Q'eqchi' villagers are pragmatic when making decisions, relying on previous treatment outcomes and the resources they have available at the time when the sickness episode occurs.

Villagers understand sickness and its cure according to their psychosocial ability to socialize and be productive in their community. When selecting among interventions, patients and their families abide by a cost-effectiveness analysis. Since many Q'eqchi' families do not have much discretionary cash, they often prioritize cost, typically using free options first, such as home-remedies, the Big Falls clinic, and the Punta Gorda Hospital. They prioritize effectiveness when they are confident of the diagnosis and its cure and when they perceive the sickness as serious and do not have the free option available or have tried several free options already. Only then do they risk spending whatever is necessary to cure the patient. While they consider that both *iloneleb'* and doctors are able to cure, they rank certain *iloneleb'* and private doctors as more likely to cure challenging sicknesses. Villagers' intrinsic hope for a cure and the variety of practitioners available

compel them to find a treatment that will return them to a sense of well-being. Unless they run out of resources, families are adamant in searching for a cure.

Patients navigate through treatment options with the help of their social network. Family, friends, and community members are engaged and, collectively, they evaluate a sickness, a treatment outcome, and choose future options. For the Q'eqchi', decision-making is fundamentally a social process that should not be reduced to individual agency. The advice that comes from one's social network takes precedence even over that of practitioners, which, consequently, may lead to problems of compliance and adherence when there is too little negotiation between practitioners and families regarding a treatment's expected outcome.

In making decisions, villagers consider several factors: their access to a specific health care option, including its cost and distance and the resources they have available, their perceived understanding of the type of sickness, its severity, and the knowledge they have of a curative intervention. The outcome of these factors often shifts since the patient's kin play an indispensable role in every part of care-seeking: they make sense of the disorder, influence decisions, help find its cure, take care of the sick person, and support them through the difficulties that arise while they are sick. After the predictable first cost-conscious option, following options are unpredictable because patients and their families respond to the multitude of factors presented at a given moment in time. When it comes to selecting *iloneleb'* and private doctors, recommendations are crucial, since it limits going through the trial-and-error process and saves families time and money.

The Q'eqchi' value their autonomy when moving through treatment options. They believe in having *jun chi k'a'uxl* (one mind), selecting practitioners serially to avoid possible iatrogenic effects and committing to a single intervention for a couple of days to give the practitioner an honest chance to cure. Often, villagers do not share much information with practitioners about previous interventions. They move through the options as they see fit, trusting the recommendations made by their network, but dismissing the treatments previously chosen during the sickness episode. This frequently leads to health care behaviour in which villagers oscillate between Q'eqchi' Maya and Western medical systems. Q'eqchi' mostly visit a practitioner when their condition has developed to the point of interfering with their daily life. Thus, moving from one treatment to another may further delay diagnosis, possibly allowing the condition to become more onerous to treat, with fewer chances of a successful outcome.

In investigating how villagers make health care decisions, including the social, cultural, and economic reasons behind their selection, I have demonstrated the importance of a constructivist definition of well-being and the value of *iloneleb'* in Q'eqchi' communities. A grounded description of an Indigenous group's understanding of well-being is essential in creating appropriate and sustainable recommendations regarding a given community's determinants of health to improve their health outcomes. Furthermore, the provisioning of medical care by *iloneleb'* is an intermediate determinant of Maya people's health, since many Q'eqchi' villagers still use their service. Although there are more *iloneleb'* than doctors in Toledo, villagers use *iloneleb'* less frequently as a first resort because they are costly. Nevertheless, patients' and their families' stories and health care behaviour uncover the deficiencies in the quality of public health care. Villagers use *iloneleb'* in a second or later resort, after free options have shown no improvement. The Belizean government's lack of a national policy for Maya practitioners continues to disenfranchise Q'eqchi' families, pushing them into devastating debt as they pay out-of-pocket for specialized services that might save their loved ones.

6.1 Implications for Future Research and Policies Concerning Health Care

Three key findings from this research support a future path to equitable health and health care for Q'eqchi' Maya communities in Belize.

First, directly working with Q'eqchi' communities and giving precedence to their perspectives has allowed for a grounded understanding of their health care practices. The findings of this research are compatible with the World Health Organization's (2013, 39) *Traditional Medicine Strategy*, which calls for the use of qualitative methods to research the evidence base of traditional medical practices by looking at "outcome and effectiveness," as well as "patterns of use." I have looked at how patients and their families conceptualize effectiveness and treatment outcomes and their health care behaviour. I present two significant findings: that villagers' evaluations of intervention effectiveness largely depend on their renewed ability to return to their previous social and economic roles; and that they use Q'eqchi' Maya and Western medical systems serially, which "implicitly supports the fluid conceptualization of [effectiveness]" (Waldram 2000, 615).

Furthermore, in giving precedence to Q'eqchi' perspectives and lifestyle, this research has demonstrated the importance of family and community relationships in their way of life and well-

being. The provisioning of health care services is only one dimension of health; social, cultural, economic, and political determinants of health also affect Maya people's health outcomes. In particular, this thesis has drawn attention to the importance of community in health care behaviour. Worldwide, Indigenous communities define the particular determinants that affect their health (Nettleton, Napolitano, and Stephens 2007). *The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)*, an international instrument created over a span of 25 years between United Nations member states and Indigenous groups and adopted in 2007, enshrines the rights that "constitute the minimum standards for the survival, dignity, and well-being of the Indigenous peoples of the world" (Indigenous Foundation 2009; United Nations – Article 43 2007, 28). Notably, Article 23 in the declaration (United Nations 2007, 18) states that:

Indigenous peoples have the right to determine and develop priorities and strategies for exercising their right to development. In particular, Indigenous peoples have the right to be actively involved in developing and determining health, housing, and other economic and social programs affecting them and, as far as possible, to administer such programs through their own institutions.

Therefore, further research should work with the Maya to document the overall determinants of Q'eqchi', Mopan, and Yucatec Maya communities' health and to grasp their specific needs, priorities, and strategies towards the development of health intervention programs. It is essential that when the government designs and implements programs, these specific dynamics are thoroughly understood and given precedence.

The second key finding is that the Q'eqchi' use practitioners serially, which indicates a potential problem for health care system integration. Villagers do not use services simultaneously because they see it as dangerous. Also, both medical systems overlap as to the conditions they are understood to treat, and competing epistemologies could potentially cause conflict between doctors and *iloneleb'*. Another concern surrounding serial usage is that villagers discontinue treatment at their own discretion. This is particularly the case when using *iloneleb'*, as the Q'eqchi' believe that stopping a practitioner's service may make them spiteful. I do not suggest that *iloneleb'* in fact do this, but it is a belief that community members hold. In a handful of cases, I did hear of *iloneleb'* recommending patients to try another *iloneleb'* or a doctor. If the Belizean government considers medical integration of the two systems, where practitioners would have to work together, this could cause a decline in and negative consequences to Q'eqchi' people's usage of medical services, since they may fear iatrogenic effects.

Future research will need to identify how widespread serial usage is in Maya communities, and to investigate in greater detail which sicknesses are more likely to be cured by a doctor and which ones are more likely to be cured by an *ilonel*. Discerning the kind of care sought by and treated within each medical system can facilitate dialogue between practitioners from differing backgrounds. This may also promote cultural competency in that practitioners can negotiate solutions to maintain a patient's compliance and adherence. Research on patient and family decision-making is only one facet to consider when envisioning medical integration. Another facet would be for future research to focus on how biomedical practitioners, *iloneleb'*, and Maya community members envision medical integration in order to determine what is and is not viable.

These findings contribute to the following policy recommendation, namely that it is essential for patients and their families to maintain autonomy in health care decision-making. Alternatively, rather than integrating medical systems, it may be more fruitful to offer parallel systems. While integrated systems merge the practice and education of modern and traditional medicine to offer a unique health service, parallel systems recognize both health care systems as official, rendering service to patients through equal but separate systems (Bannerman, Burton, and Wen-Chieh 1983, 10). It would also be favourable for *iloneleb'* to work independently because this would allow patients and their families to select practitioners without fear of adverse health outcomes.

The third key finding is that the Belizean government's lack of traditional medicine policy further disadvantages those who are already vulnerable. The Q'qechi' evaluate many *iloneleb'* and private doctors as offering superior quality of care and being more successful in their outcomes compared to public doctors. When the public system fails to provide an effective intervention, a family must find alternative care in order to achieve a cure. The practice and fees of *iloneleb'* have changed over the years since Belize's assimilation into the global market economy and the adoption of neoliberal reforms. Although some *iloneleb'*, like those of the Maya Healers' Association of Belize, accept what a patient and their family can pay, because many *iloneleb'* live in poverty some will try to make the most of their practice by charging far beyond what is available financially to a single household.

Since, in our present zeitgeist, numbers, money, and economics seem to speak louder than people's lives and suffering, a future research project would need to document the amount of money families spend on *iloneleb'* services, as well as the frequency of their use. This could

potentially help get the attention of the government. Possible methodological designs include a quantitative survey approach or a mixed-method that implements a diary study.²⁸ Some critical variables that would need to be considered are ethnicity, age, individual and family socio-economic status, health conditions, education, religious affiliation, and geographical location. This would provide a broader understanding of how Maya communities use *iloneleb'* and would reveal the damaging extent of Maya families' out-of-pocket health care expenses, with the resulting distresses portrayed in this thesis.

After interviewing a variety of Punta Gorda community members, Douglas Reeser (2014, 200) found that it would be a popular move for the National Health Insurance to cover the cost of service of traditional practitioners. This research with Q'eqchi' villagers also suggests that a kind of insurance model would be suitable for patients to access an *iloneleb'* for free, or at a discounted fee. To benefit Maya communities in Toledo, the Belizean government could shape the insurance system around offering *iloneleb'* services as a parallel system for patients to use when the hospital cannot do more. However, in undertaking the inclusion of *iloneleb'* into the National Health Insurance, two crucial consequences must be considered. On the one hand, if traditional practitioners are integrated into the private sector, it risks making their service only available for the rich and thus, consequently, widening the inequality gap (Burford, Bodeker, and Ong 2007, 53). This would alienate Maya communities who depend on their practice. The inclusion of Maya practitioners is of utmost importance for Indigenous communities, and prioritizing their accessibility should be integral to future policies. On the other hand, if *iloneleb'* are only made available to disadvantaged populations, they risk being stereotyped, stigmatized, and marginalized as practitioners for the underprivileged (Mbindyo 2007, 210). Decision-makers will need to find a balance between these poles.

A challenge to the success of a future policy, however, is that *iloneleb'* would need to work together to develop an accredited system that works for them. Some kind of proof of qualification, such as education credentials or an organized body akin to an association or an ordinance, is essential to working with the government (World Health Organization 2013, 33). Some Maya community members and *iloneleb'* resist the idea of an association, as it goes against the grain of traditional ways of working independently, and it "imposes and constricts the natural, organic

²⁸ Not all Maya family members are literate, therefore, in a diary/logging approach, one will need to think of the design most appropriate to gather this data.

evolution of the practice” (participant, as cited in Vrettas and Waldram 2018, 8). However, to prioritize the safety of Maya people, Maya practitioners and other leaders will need to negotiate this conflicting stance.

The Maya people have an “equal right to the enjoyment of the highest attainable standard of physical and mental health,” as well as the “right to their traditional medicines and to maintain their health practices,” and “the right to access all health services,” as delineates Article 24 of the declaration (United Nations 2007, 18 and 22-23). However, this thesis has portrayed that currently there exist several impediments to equal health outcomes and health care access for many Maya. Although the Belize United Nations member states adopted the *UNDRIP*, the government is not bound to the declaration’s implementation and may narrowly interpret the rights (see Willoughby 2019, 24-29). Maya leaders, however, use the *UNDRIP* as a tool to advocate for equal treatment (e.g., Willoughby 2019), and, anytime the Maya people have been threatened, representative institutions of the Maya of southern Belize, such as the Maya Leaders Alliance, the Toledo Alcaldes Association, the Julian Cho Society, among other, have worked together to support their community (e.g., Coc 2020; Maya Leaders Alliance 2018; Toledo Maya Cultural Council et al. 1997; Willoughby 2019). If there is to be significant improvement in the health, well-being, and overall access to health care services for Maya throughout the Toledo District, similar organizations like these will need to work together to further investigate their community’s health care behaviour and to further advocate for their rights.

6.2 The Value of Engaging with the Maya and Their Way of Life

Recently, the Government of Belize (2016, 10), in the *National Cultural Policy*, declared the significance of “traditional medicine and its related practices [...] for health benefits among many of Belize’s cultural groups.” However, related practices are open to interpretation, with no direct mention of practitioners specifically. The policy’s interventions outline the involvement of practitioners only for safeguarding culture. The primary focus seems to be the preservation of knowledge and practices to evaluate the degree to which it may be applied to the national health care to benefit all Belizeans. The findings in this thesis, however, have highlighted the active involvement and value of *iloneleb’* for the Q’eqchi’. This policy, in failing to recognize traditional practitioners as key actors in the provisioning of health care, consequently treats Maya knowledge as an artifact, “simply something to be preserved as a record of what has been lost to the seemingly

inevitable march of Western knowledge” (Briggs and Sharp 2004, 673). John Briggs and Joanne Sharp (2004) caution against formal top-down developments that have not included the local voices and priorities of Indigenous communities. They contend that such developments only regard Indigenous knowledge symbolically and not as fundamental material conditions that sustain the survival of these communities. They further express that in doing so, the dominant Western worldview fails to advance meaningful conversations with Indigenous worldviews to co-create alternative realities and successfully change Indigenous people’s conditions. Waldram (2020), in his ethnography, *An Imperative to Cure*, also argues for the need to deem Indigenous knowledge as a materially based. He explains that Maya medicine serves as a “medical” process moreso than a “healing” one, in which the separation of these intrinsic processes has been rooted in a history of Western hegemony. Since Maya medicine principally functions as a medical process to restore health, its epistemologies may collide with those of Western medicine. This will inevitably provoke issues of power, authority, and control. Waldram sees potentially conflicting epistemologies, combined with the Belize *National Cultural Policy*’s failure to distinguish cultural groups, as problematic. He contends that conflating Maya, Garifuna, East Indian, Chinese, and other systems could leave Maya medical systems with less prominence and even more marginalization in comparison with the more globally recognized health care systems that are amendable and compatible with biomedicine. These two critiques, the policy’s failure to acknowledge traditional practitioners and its potential to marginalize Maya practitioners further, suggest that the *National Cultural Policy* will not effectively advocate the crucial importance of *iloneleb’* in the provisioning of health care to Maya people.

The health care behaviour of Q’eqchi’ villagers in Indian Creek clearly illustrates the fluid and dynamic nature of the health care systems in Belize. Patients and their families do not separate Q’eqchi’ Maya and Western medical systems as being more or less valuable than the other. Instead, they conceptualize the plurality of medical alternatives as available options that could cure. Q’eqchi’ people’s evaluation of Q’eqchi’ Maya medicine oppose those of the Belizean government. Waldram (2020, 227) rightfully contends that the inclusion of traditional medicine in the cultural policy rather than of the national health policy, is “telling of the government’s view – one not uncommon in much of the world – that Indigenous medical systems remain remnants of cultural traditions that have little to offer modern, science-based practice of medicine.” The Belize

government ranks Western medicine above traditional forms and, in doing so, maintains an ever-present predominance over medical care in the country.

As I return to the initial episode that perplexed me upon my arrival in Belize, I find resonance with Reeser's (2014, 204) argument that "the State must maintain a presence or risk losing influence and credibility. The national health care system is one way in which the State maintains that presence." "With policies restricting the entrance of outside providers," he continues, and with an attitude of indifference towards Maya medical systems, I would add, "the State has created an effective monopoly on health care services." The placing of an oversized Ministry of Health poster at the international airport's entrance is the government's strategic way to exercise power and maintain control over what services are acceptable. Despite the government's guiding principle of social welfare and its overall advances in citizens' health outcomes, the current health care model in southern Belize fails to accomplish what it promotes and seeks to achieve. Until the Belizean government includes Maya people's perspectives and way of life in their executive decisions, it will not be fulfilling its advertized "Equal Health for All."

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Appendix A: Ethics Approval



Behavioural Research Ethics Board (Beh-REB)

Certificate of Re-Approval

PRINCIPAL INVESTIGATOR
James Waldram

DEPARTMENT
Psychology

BEH#
12-158

INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT
Belize
University of Saskatchewan
Saskatoon SK

STUDENT RESEARCHER(S)
Rachel Phillips Hall, Demi Vrettas

FUNDER(S)
SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL OF CANADA (SSHRC)

TITLE
Q'eqchi Maya Conceptions of "Self"

RE-APPROVED ON
29-Mar-2017

EXPIRY DATE
28-Mar-2018

Delegated Review: Full Board Meeting:

CERTIFICATION

The University of Saskatchewan Behavioural Research Ethics Board (Beh-REB) is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2 2014). The University of Saskatchewan Behavioural Research Ethics Board has reviewed the above-named research project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol or consent process or documents.

Any significant changes to your proposed method, or your consent and recruitment procedures should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.

ONGOING REVIEW REQUIREMENTS

In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month prior to the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for further instructions: http://www.usask.ca/research/ethics_review/

University of Saskatchewan
Behavioural Research Ethics Board

Please send all correspondence to:

Research Ethics Office
University of Saskatchewan
Box 5000 RPO University
1607 – 110 Gymnasium Place
Saskatoon, SK Canada S7N 4J8

Appendix B: Research Permit



PERMIT TO CONDUCT SOCIAL RESEARCH

Permit No. ISCR/ H/2/62

Grantee:

This is to certify that **Dr. James Waldram** (Principal Investigator of Saskatchewan University) and **Demi Vrettas** (Co-Principal Investigator, Saskatchewan University) have been granted permission to conduct social research in Belize.

Research Title:

The changing context of Q'eqchi Maya Healing

Research Location(s):

Toledo, Belize

Validity:

This permit shall remain valid from **1 June 2017 to 30 June 2018** and shall be subjected to conditions hereunder and to the compliance by the Grantee with the NICH Act.

Conditions:

Permission has been granted by the Institute for Social and Cultural Research under the auspices of the National Institute of Culture and History (NICH) as contained in the NICH Act Chapter 331, Section 71 and 72 (a) Revised Edition 2003, of the laws of Belize. The Act requires the Institute for Social and Cultural Research to review and approve all proposed research involving humans that is conducted in the country of Belize.

Institute for Social and Cultural Research
National Institute of Culture and History
Tel: 822-3307



Appendix C: Interview Guide for Villagers

1. Tell me a little bit about yourself. (Prompts: age, place of birth, family, regular activities)
2. What does it mean to be healthy?
3. What does it mean to be sick?
4. Why do people become sick?
5. How do you know if you are sick?
6. How do you know if someone is sick?
7. What do you do if you are sick?
8. How do you choose to treat your sickness?
9. What do you expect from a treatment?
10. What does it mean for a treatment to work?
11. How do you know if a treatment has worked?
12. What do you think about traditional practitioners?
13. Are all traditional practitioners the same or do they have differences?
14. Have you/or a family member ever used a traditional practitioner? (Why or why not?)
15. Why did you visit a traditional practitioner? (Tell me about your experience)
16. Do you think the treatment they use work? (Why or why not?)
17. Can you tell me about an experience you had with a traditional practitioner?
18. How did you find the traditional practitioner?
19. What do you think about doctors?
20. Is a traditional practitioner different from a doctor? (If so, how? If not, why not?)
21. Would you use a traditional practitioner and a doctor at the same time?
22. If someone brings up a sickness experience:
 - a. When did the sickness start?
 - b. How did you know you/the person was sick?
 - c. What did you do to treat it?
 - d. Why did you decide to use/go to the [treatment/practitioner sought]?
 - e. Why did you decide to use/go to the [treatment/practitioner sought] instead of use/go to the [treatment/practitioner]?
 - f. What did the [treatment/practitioner sought] do for you? (Get details on diagnosis, treatment and details of treatment process)
 - g. How did the treatment turn out? (Get detail on treatment outcomes)
 - h. How did you know that the treatment did not work?
 - i. How did you know the treatment worked?
 - j. How long did your/the sickness last? (Get details on timeline)
 - k. Other tailored questions to get more details of sickness experience.

Appendix D: Interview Guide for *Ihoneleb'*

1. Tell me about yourself. (age, place of birth, family, everyday activities, religious background, time joined association)
2. How did you become a traditional practitioner?
3. What does it mean to be healthy?
4. What does it mean to be sick?
5. How do you know if someone is sick?
6. When does a patient see you?
7. What kinds of disorders do you treat?
8. What do you expect from a treatment?
9. What does it mean for a person to get better?
10. How do you know if a person is better?
11. How do you know if a treatment is working?
12. How do you know if a treatment is not working?
13. What do you do if your treatment is not working?
14. What does it mean for someone to be healed?
15. How long does treatment last for?
16. How do people find healers?
17. Are there different kinds of healers?
18. Do you ask if they've been treated elsewhere before visiting you?
19. Have you had a patient who saw a doctor before coming to you?
20. Would you and a doctor be able to work together?
21. How is what you do similar to a doctor?
22. How is what you do different than a doctor?
23. Have you ever visited the doctor?

Appendix E: Treatment Interview Guide

Section 1 – Patient

1. Sickness experience questions:
 - a. Tell me about your sickness.
 - b. How did you know you were sick?
 - c. When did your sickness start?
 - d. Why did you become sick?
 - e. What did you do to get better?
 - f. Do you know what sickness you have?
 - g. Why did you decide to go to [the treatment sought]?
 - h. What was the outcome [of the treatment used]?
2. Treatment experience questions:
 - a. What are you feeling? (signs and symptoms)
 - b. Did you expect something from treatment from [last treatment date]?
 - c. Did you think [last treatment date] treatment worked?
 - d. How did you know that it worked, or did not work?
 - e. If it did work, when did you know it worked?
 - f. Was [the last treatment] different to [the last treatment]? (If so, how?)
 - g. Was [the last treatment] similar to [the last treatment]? (If so, how?)

Section 2 – *Ilonel*

1. Clarification questions related to details/significance of practices used during the treatment. (Diagnostic tools, prayers, treatment, and medicines used)
2. Do you know what is the sickness [the patient] is experiencing? (If so, which?)
3. How did you decide to treat this sickness? (Get details about what was used and why)
4. Have you treated this sickness before?
5. Has [the patient] healed like other you have treated with this sickness?
6. Do you think the treatment you gave [the patient] worked? (If so, how do you know this?)
7. Do you think [the patient] is doing better? (If so, how do you know?)
8. Will you need to visit the patient again? (If yes, why? Also, how many more treatments are needed? If not, why?)
9. Do you think [the patient] can be cured?